REPORT

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ON THE

STATISTICS OF THE BEERBHOOM DISTRICT.

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BY

J. GEOGHEGAN, ESQ.; C.S..

Offg. Collector of Beerbhoom.

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AGRICULTURAL STATISTICS.

BEERBHOOM, BURRWA, MOURESHER.

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No. 541A, dated Fort William, the 18th September 1873.

From—J. GEOGHEGAN, ESQ., Offg. Secretary to the Board of Revenue, L.P.,

To—The Offg. Secretary to the Government of Bengal, Statistical Department.

I AM directed by the Member in Charge to submit, for the information and orders of Government, the accompanying copy of a letter No. 457, dated 17th July last, together with copy of a report* from the Collector of Beerbhoom, on the progress of the statistical enquiries set on foot in that district, and to observe that the Collector has devoted much thought and time to the preparation of his report, which is most interesting.

* No. 65, dated 4th July 1873.

2. The Member in Charge has approved of the course taken by the Commissioner, as explained in the 3rd paragraph of his letter above cited.

3. With regard to the proposal made by the Commissioner in the 4th paragraph of the same letter, viz., to dispense with the services of the special Deputy Collector and his establishment, and to throw the duty on the second class establishment under the supervision, it is presumed, of the Collector, the Member in Charge fears that so much work will already be found to be required from that establishment, that it would be impossible for it to carry out with sufficient accuracy the very complicated enquiries which must be carefully conducted to supply the necessary statistical information.

4. The Member in Charge is altogether opposed to the enactment of any such law as that suggested by the Commissioner in the 5th paragraph of his letter. He believes that by a little tact and intelligence, the necessary information can be obtained without any such recourse to legislation.

No. 457, dated Burdwan, the 17th July 1873.

From—C. T. BUCKLAND, ESQ., Commissioner of the Burdwan Division,

To—The Secretary to the Board of Revenue, Lower Provinces.

WITH reference to your No. 43 of 21st January, communicating instructions in regard to the statistical enquiries to be prosecuted in the district of Beerbhoom, I have the honor to submit, in original, a letter, No. 65, dated 4th instant, with its enclosures, from Mr. Geoghegan,

Collector of Beerbhoom, which contains a report of the work of Deputy Collector Baboo Janoki Nath Mozoomdar, in what may be called a specimen area in the district of Beerbhoom.

2. Finding that Baboo Janoki Nath Mozoomdar was so little acquainted with English that he communicated with the Collector by Bengali roobookari, I begged Mr. Geoghegan to undertake the labor of editing, or, more strictly speaking, of producing in a practical shape, the crude and ill-digested materials submitted to him by the Deputy Collector. On reading the report it will be seen how very much is due to the very capable editor, and how hopeless a task it would have been for the Deputy Collector, in spite of Mr. Geoghegan's indulgent remarks, to have produced a report which would have set forth the information acquired in the lucid order and style which it now enjoys.

3. I shall not attempt any comments on the report in manuscript, but when it is printed, I shall be obliged if some copies can be sent to me. In the meantime the Deputy Collector has been directed to prosecute his enquiries in thana Maureshwar, and I shall request the Collector to furnish him with instructions in the spirit of the suggestions contained in paragraphs 89 to 93 of Mr. Geoghegan's letter. I have no doubt that the zemindars will be willing to give some assistance, but I am not disposed to put very much reliance on it, and anything like an order to them to give assistance would probably be misconstrued and perverted for very undesirable purposes.

4. I must, however, call the attention of the Board of Revenue to the expense which has been incurred in procuring the present report, because, so far as can be calculated in this office, the salary of the Deputy Collector, with his special allowance and his establishment, must have amounted to Rs. 6,355 from the date of his appointment up to the present date. It can hardly be said that the information provided at that cost is worth such an expenditure; certainly not if it had not been so ably manipulated and served up by Mr. Geoghegan. Now that a second class establishment has been appointed to the district, I think it would be prudent to dispense with the services of the special Deputy Collector and his costly establishment.

5. I beg further to suggest that if these special statistical enquiries are to be extended, it would be of much advantage to pass a law to authorize the officer employed to call for information similar to that which a Collector was authorized to demand from a village putwaree under section 22 of Regulation XII of 1817. Where there is no putwaree, the demand should be made on the zemindar or his local representative, the gomashta, or whatever title he may bear. As I merely offer this as a suggestion, it is unnecessary to go into further detail at present; but I think it would be acceptable to the people if some law were passed to give a legal basis to the proceedings of the officer employed to collect information. I do not mean to hint that anything illegal has been done or is likely to be done, but a short and clear enactment would define the authority to be exercised on the one side and the duty to be performed on the other side

No 65, dated Soory, the 4th July 1873

From—J GEOGHEGAN, ESQ., Offg. Collector of Beerbhoom,

To—The Commissioner of the Burdwan DIVISION.

I HAVE now the honor to report on the progress of the statistical enquiries set on foot in this district

Commencement of enquiries, and instructions issued for guidance of Deputy Collector.

2 The first intimation that Beerbhoom had been selected as one of the districts for the prosecution of special enquiries into "stock, agriculture, &c.," and that Deputy Collector Babu Janoki Nath Mozoomdar had been appointed to carry out these enquiries, was conveyed with your office memorandum No. 121, dated 16th September 1872 "Pending the issue of detailed instructions" the Board of Revenue explained that "the scope of the enquiries to be carried out" was "indicated by the following tables in the Board's statistical return No. 41B.

"PART I.—Table E 2.

"PART III—Table D 1, 2 and 3, F 1 and 2, and K.

"PART IV.—Table A"

These tables are thus headed and divided:—

PART I, E 2.—Fiscal.—Surveyed and assessed area in acres. Land is divided into cultivated and uncultivated: the cultivated land being divided into irrigated and unirrigated; the uncultivated into grazing land, culturable, and unculturable waste.

PART III, D 1—Agriculture. - Crops cultivated in acres, actual or approximate.

PART III, D 2—Stock—Showing the number of stock of various kinds, as also of carts, ploughs, and boats

PART III, D 3.—Rates of rent and produce.—Showing the average rent and average produce, respectively, of land under the various crops

PART III, F 1.—Prices of produce and labor Produce.—Showing the price of the various kinds of crops, as also of stock, and of fish, iron, salt, &c.

PART III, F 2.—Labor.—Showing the wages of skilled and unskilled labor, the rate of hire of carts, boats, &c.

PART III, K.—Charitable institutions.

PART IV, A.—Statistics of instruction—religious institutions.

3. It was directed that the Deputy Collector should commence operations by collecting all possible information from the survey registers and other records at the head-quarters of the district, and digesting it into a form in which it would serve as a convenient basis for detailed mofussil enquiries to be undertaken as soon as the cold weather commenced, and he was to work under the general supervision of the Collector, who was to aid him by advice and information to the best of his power.

4. Subsequently (3rd December 1872), the "rules for the preparation of Board's return No 41B" were received Paragraphs 12, 19—26, of these rules bear on the tables which had been already indicated as pointing out the general direction the enquiry should take.

5. Your endorsement No. 200, dated 11th February last, forwarded certain further instructions, which, for readier reference, are here extracted—

"*Paragraph* 2.—It is presumed that the orders contained in the 3rd paragraph of the letter above alluded to have been carried out, and that the Deputy Collector entrusted with the conduct of the enquiries has already compiled and tabulated the information available from the survey records of the district in regard to cultivated, uncultivated, culturable, and barren areas, and is now in a position to proceed into the interior of the district for the purpose of examining the condition of the country, village by village.

"*Paragraph* 3.—The season is so far advanced that it will be impossible to complete such examination during the present official year, and it is therefore to be understood that the statistical return (XLI B) for the year 1872-73 must be based on the enquiries made, so far as they may have gone, the best generalization being made from the information gained through those enquiries in regard to a limited area. His Honor the Lieutenant-Governor has informed the Board that, should the Deputy Collector have a good specimen area thoroughly examined by the 31st March next, he will be content with his work.

"*Paragraph* 4—The Deputy Collector should therefore, acting under the guidance of the Collector, select certain thanas or pergunnahs within which to prosecute his researches; and having entered on any particular tract, should not, without special reason, to be approved by the Collector, quit it until his investigation has been completely carried out.

"*Paragraph* 5.—He should commence by ascertaining from the zemindars or their agents the cultivated area in each village, as recorded in the zemindari books. He should check this to the best of his ability by personal observation, but should not test the information by actual measurement, except with the full consent of all the parties concerned. As a rule, it may be found difficult to secure such consent, and therefore the Deputy Collector must generally compile the necessary information by going about the fields and comparing what he sees with what he hears. With intelligence and care he will not fail in this way to secure approximately accurate results. It must be remembered that there is no occasion whatever for any measurement of the holdings of tenants or others. The object is to ascertain as nearly as possible the total area in each village under cultivation, with each several kind of crop. Whenever, therefore, a measurement of such area is made, boundaries of holdings should be systematically ignored, the area under each crop being measured in block. The measurements may be effected in the ordinary native method by length and breadth only, and need not be done with scale and compass, and no maps need be prepared.

"*Paragraph* 6.—Having obtained, whether by simple enquiry or actual measurement, the cultivated area in the village, the Deputy Collector should proceed to measure the uncultivated area, a process to which probably no objection will be raised. He should measure it in blocks, distinguishing the culturable and unculturable lands, and noting carefully any uncultivated land that is really productive for grazing purposes. The grazing capacities of the district, I am to observe, should

be a principal subject of his enquiry, for he will have specially to note whether the people breed cattle enough for their own use, and whether they import and export cattle of various kinds.

"*Paragraph* 7.—The measurements and estimates of cultivation should be carefully compared with the survey records, and any striking discrepancies enquired into. Having completed his local enquiries, the Deputy Collector should classify the lands of the village thus—

(1).—Cultivated during the current year.
(2).—Cultivated within the last three years, and now fallow.
(3).—Culturable, but not under cultivation during the last three years.
(4).—Unfit for cultivation.

Lands of the first class will appear in columns 2 to 5 of table E 2, Part I. Column 7 of the statement should be divided so as to show lands of the second and third classes separately, after deduction of the area of grazing land to appear in column 6. In regard to this table, the instructions contained in paragraph 12 of the general rules, already forwarded with Board's orders, No. 580A, of the 14th November last, must also be carefully attended to.

"*Paragraph* 8.—As the investigations proceed, they should become progressively easy and rapid. When the Deputy Collector has, by the processes sketched above, secured specimen results for a good many villages in different places and of different characters, he will be able by comparison to check by the eye the statements of cultivated and uncultivated land, and of the areas covered by various crops, which he may secure from putwarees, gomashtas, and ryots for the other villages, making closer enquiry when the statements seem at variance with appearances, and accepting in the rough those that seem credible and probable. Large uncultivated areas will be very apparent, and the area may be got from the survey maps, allowance being made for any small proportion of cultivation. The Lieutenant-Governor, after observing that an 'active and intelligent man, setting himself down in a group of eight or ten villages, will soon be able to give a rough, but fairly accurate statement of the proportion in which the various principal crops are cultivated in them,' continues—'The efficiency of the officer will be judged by the products of his results compared to the smallness of the machinery which he employs. Rents, average produce, &c., he must ascertain as best he can; all will depend on his method, tact, and intelligence. The same principle should be observed as regards number of cattle and other animals, which should be ascertained as nearly as possible.'

"*Paragraph* 9.—Beyond the figured statements, the Lieutenant-Governor hopes to have for each selected district a full and intelligent report, showing the modes and results of agriculture and stock keeping, size and tenure of farms, condition and habits of the people, &c., &c.; in fact, everything that regards agriculture, stock, and produce. Statistical information regarding other trades, manufactures, &c., should also be supplied in as much detail as possible; rates of wages and hire, prices of produce and other articles, must all be carefully noted and reported on.

"*Paragraph* 10.—The Lieutenant-Governor concludes—'The great thing will be to enlist the zemindars and people on the side of

Government, showing them that it is not the intention to pry into their affairs or to measure their lands with any ulterior object beyond the general knowledge of the country which may enable Government to do what it can for their welfare.'

"*Paragraph* 11.—Lastly, it is to be understood, that while the especial duty of the Deputy Collector is to collect agricultural statistics, *i.e*, those required for the preparation of Part I, table E 2, and Part III, tables D, F, and G, of the Board's return XLI B, he must also assist the Collector to the best of his ability in ascertaining the particulars to be exhibited in Part III K and Part IV A, such particulars being procurable by local enquiry only."

6. Copies of these instructions were forwarded as received to the Deputy Collector in charge of the enquiry; but no specific *local* instructions for his guidance appear to have been considered necessary. My predecessor, however, applied to you (1) for an elephant for the Deputy Collector, and (2) for his investment with the powers of a Deputy Collector under Regulation VII, 1822. You, however, were of opinion that the Deputy Collector ought to *ride*, and that, as there were no settlement proceedings pending, it would be impossible to vest him with the proposed powers.

Certain other duties assigned to Deputy Collector

7. With your permission the Deputy Collector was also entrusted with the preparation of a report on the land tenures of the district and with the survey of the actual criminal jurisdiction boundary between this district and the districts of Moorshedabad and Burdwan. Probably with a view to enable the latter task to be prosecuted simultaneously with the statistical survey, the thana of Barawan, on the east of the district, was selected as the first scene of the Deputy Collector's labors, and when the enquiry was finished there, he was permitted to proceed to the thana of Maureshwar, which also marches with Moorshedabad.

Establishment.

8. The Deputy Collector's establishment was first fixed at one peshkar on Rs. 70 a month; three mohurirs on Rs. 20 each; and six chuprasees on Rs. 5 each To this was subsequently added a measuring establishment of nine ameens on Rs. 16 each, and nine chainmen on Rs. 3 a month each. The present establishment therefore costs Rs. 351 per mensem

Beginning of the work

9 The Deputy Collector joined the district on the 16th September 1872. For three months he was engaged in tabulating the information bearing on his enquiries to be found in the survey maps and registers, and in the census registers. The latter were, for the present purpose, chiefly useful as giving *Thanawari* lists of villages; for, owing to the way lands of one pergunnah are mixed up with those of another, it was found impossible to divide the district otherwise than by thanas. The information tabulated appears to have been simply the area (1) cultivated, (2) uncultivated, and (3) under village site, as shown by the survey records Considering the vagueness and routine character of the survey entries on the subject of soil, crops, irrigation, and stock, and the fact that the record is 20 years old, I am of opinion that the

Deputy Collector was right in confining his attention to the particulars noted. But such being the case, I think he should not have taken three months to tabulate such simple details.

Deputy Collector's method of proceeding

10. At any rate, the Deputy Collector did not take the field till the 19th December 1872 He describes his *modus operandi* as follows :—He prepared three forms in the vernacular (his knowledge of English is extremely limited). The first was drawn up village by village, and showed for each household in such village, (1), the name of the head of the household ; (2), his caste and occupation ; (3), live stock under various heads ; (4), ploughs, carts, and conveyances ; (5), spinning wheels, looms, silk-reeling apparatus on a small scale, oil-mills, potters' wheels, blacksmiths' forges. The second showed for each village, (1), the number of silk filatures on a large scale, with details as to number of furnaces and hands employed ; (2), charitable dispensaries, with particulars as per Form Part III K ; (3), statistics of instruction as per Part IV A ; (4), markets, fairs, and *emporia*, (5), mines and quarries. The third showed village by village the quantity of land, (1), under crops of various kinds ; (2), under orchards ; (3), under village site ; (4), uncultivated, with details ; (5), under tanks, rivers, or creeks. The information collected first in this form has been digested as far as possible into the Board's Forms Part I E 2 ; Part III D 1, 2, and 3 ; F F 1 and 2 ; G and K, and Part IV A.

11 The Deputy Collector called upon the zemindars for assistance in the way of producing village papers and the like He seems, however, to have received but little assistance. The zemindars all allege that their papers only show the rent assessed, and not details of the land on which it falls ; but in a tract where land is so valuable, and where cultivation has been pushed to the very limits of the culturable area, and where, moreover, as the Deputy Collector himself points out, the rates of rent vary according to the situation and character of the land and its suitability for particular crops, I can hardly suppose that the receivers of rent have not a very closely approximate record of the quantity of land of each kind cultivated in each village As it is, the Deputy Collector has been obliged in all cases to have recourse to actual measurements *en bloc*. His information as to cost of cultivation, rates of rent, quantity of produce, and the like, has been derived from personal enquiries in the villages, from actual cultivators, village headmen, chowkeedars, and others. The further prosecution of the enquiry, by bringing the statements now made into comparison with other information, will afford some sort of check upon the first estimates.

Progress of enquiry

12. By the end of March, Baboo Janoki Nath Mozoomdar had finished the thana of Barawan, and was then allowed to proceed with similar enquiries in Maureshwar. But as it became necessary to give some definite account of the work done and the mode of doing it, I was obliged to call him for a time into the sudder station. His returns and notes were all in Bengali, and if I had left them to be translated by even the most intelligent of the clerks at my disposal, the account would have assumed a somewhat repulsive form, and I should after all have had to summon in the Deputy Collector to explain difficulties or discrepancies,

and to follow out further any enquiries which might seem defective. I therefore determined directly to undertake the work of translation, exercising my discretion in pruning down redundancies and endeavouring to bring facts and calculations to the test, as far as it was possible to do so without personal re-investigation on the spot. It is to be regretted that my predecessor, Mr Tottenham, who had a much better knowledge of the district than I, and who had, during his last tour, gone over much of the ground covered by the present report, was transferred before the results of the preliminary tract were ripe for record. I think that the statements throughout must be accepted as provisional, and it will be very desirable that they should be tested *in situ* by the Collector during his cold weather tour. Having premised thus much, I proceed to report the result of the enquiries held by the Deputy Collector in thana Barawan

Tract surveyed—general description.

13. This thana is one of the smaller thanas of the district. As near as I can estimate from a map, on the scale four miles = one inch, furnished me by the Boundary Commissioner, its area is about 105 square miles, an area which approximately corresponds with the sum of the village areas. The tract is tolerably homogeneous It is the most easterly thana, and is therefore in some respects the least characteristic. Its population contains a larger proportion of Mahomedans and a smaller element of the aboriginal type than the tracts to the westward, and the soil is distinctly alluvial, though somewhat higher in level than the alluvium of Moorshedabad and the Gangetic delta to the eastward. It is drained by four rivers—the Moore, the Kandar, the Kana, and the Kuniya, which, in the rainy season, find their way through a network of creeks and swampy lakes into the Dwarka, and so into the Bhagiruthee, not far above Katwa. These rivers are, however, not perennial, being only torrent streams rising in the hills to the westward, and flowing spasmodically during the rainy season ; nor is the tract generally liable to inundation. There is but one small bheel near Panchthupi, into which the Moore is allowed at times to flow. The census assigns this thana a population of 64,173 souls, which, assuming that the area is estimated with approximate correctness at 105 square miles, would give 611 souls to the square mile, a density considerably above the average of the district. This is only what we should expect when we come to compare the high proportion of cultivation in the tract under consideration with the extent of jungle in the western parts of the district. The number of villages, as given by the census returns, is 228. There seems to be but one really large village rising to the rank of a town, viz., Panchthupi, but even this does not number 5,000 inhabitants. The tract is utterly agricultural, rice being the main staple. The amun, or late rice-crop, produces enough to feed the population, and probably to allow of some export. Goor and oil-seeds are also produced, but not exported, being not more than enough to meet the requirements of the tract. There is a small production of the ordinary pulses—arhar, bút, and the like. Add to these the mulberry cultivation, and we have the whole resources of the tract, which thus, primitive and rustic as it may be, stands in close solidarity with the outside world For cotton to clothe themselves, the inhabitants look to the marts of Agra and Cawnpore :

while for salt, tobacco, metals, betel, and pan, they depend on imports from Calcutta or the marts which line the banks of the Bhagiruthee. The whole population depends either directly or almost directly on agriculture, and indeed, those who have other occupations, as small shopkeepers, handicraftsmen, and the like, will also hold a plot of land. All but the most indigent class, and perhaps a few immigrant shopkeepers and traders, derive at least a portion of their support from land. There is no separate class of laborers, nor does the tract supply labor to other tracts. But agricultural labor is to be had among the class of small cultivators. For instance, a family of brothers may hold land not enough to give occupation to them all, and some of them will work as laborers for their neighbours.

14. The following table embodies the main results of the Deputy Collector's survey as far as the distribution of land in respect of produce goes :—

Classification of land according to produce.

	A.	R.	P.		B.	K.	G.
Land under crop—							
Rice land	46,947	2	32	=	142,016	16	2
Sugarcane	1,207	1	24	=	3,652	8	1
Cold weather crops	2,351	1	8	=	7,112	13	6
Dihi mulberry	2,818	0	6	=	8,524	10	3
Mathal mulberry	141	3	36	=	429	10	10
Vegetable	125	3	0	=	380	7	15
Jedanga (arhar, &c.)	255	0	4	=	771	9	0
Total ...	53,847	0	30	=	162,887	14	17
Orchard land	498	1	30	=	1,507	15	9
Uncultivated—							
Was cultivated three years ago, not since	374	2	30	=	1,132	18	8
Has been cultivated within three years...	221	0	17	=	668	13	16
Uncultivable	884	1	8	=	2,674	19	18
Grazing land	3,163	0	12	=	9,568	5	7
Total ...	4,643	0	0	=	14,045	4	9
Village site—							
Bastu	2,053	0	17	=	6,210	12	18
Udbastu	75	2	37	=	229	1	17
Total ...	2,128	3	14	=	6,439	14	35
Under water—							
Tanks	4,804	2	17	=	14,533	18	9
Khals	290	3	14	=	879	16	0
Rivers	738	3	33	=	2,234	7	0
Total ...	5,824	1	29	=	17,649	1	9
GRAND TOTAL ...	66,951	3	18	=	202,529	8	0

This statement is, on the face of it, remarkable enough. It shows that in an ordinary year, if we deduct from the total area the land covered by water and the land occupied by the village sites, eleven-twelfths of

the remainder are actually productive; that is to say, actually either under crop or orchard land, giving more than two and a half acres of tilled land to every adult male. Again, of this productive area more than seven-eighths is land of which the staple crop is amun rice. As we shall see further on, this land produces other crops: but it is essentially rice land. In extent of cultivation the next most important product is mulberry, occupying about one-eighteenth of the cultivated area; then comes the land under cold weather crops, which also produces aous rice in its season (still further swelling the rice area). Sugar-cane follows next, with about 1,200 acres; while fractional areas are devoted to arhar (*cytisus cajan*), sunn, and miscellaneous vegetable crops. Of the uncultivated land, about one-fifth is classed as unfit for tillage, and about two-thirds are set apart as grazing land. The whole uncultivated area affords probably some sort of scanty herbage, but even so, the area of grazing ground, taking that term in the widest possible sense, is miserably small compared with the cultivated area. On the other hand, the tank area is proportionately large, and we shall see that tanks play an important part in the irrigation of the tract.

14A I have endeavoured, by comparison with the survey records, which date from 1851-52, to see if, during the last twenty years, the proportional area under cultivation has materially increased. The revenue survey then puts the total area at 68,513 acres, of which 57,373 are entered as cultivated. But under this head were included village sites, tanks and other water, garden and grazing land. It is impossible to say now how much fell under these designations at the time of survey; but we shall perhaps not be far wrong in assuming the total to be deducted as equal to the area *now* falling under these heads, or 11,613 acres. This would leave as the true area under crops twenty years ago about 46,000 acres, as compared with about 54,000 acres at the present day, giving an increase in those twenty years of 17 per cent.

15. The measurements affect a great accuracy, and I think the Deputy Collector has perhaps attempted too much in this direction; but they fit in fairly with what I have estimated from the survey maps to be the total area of the thana, and, in the case of individual villages, with the area given in the survey records. A statement in the Board's Form Part I E 2, is appended.

Soils and kinds of land.

16. I proceed to record the result of the Deputy Collector's enquiries with regard to the different kinds of soil and classes of land.

Soils.

17. There are three kinds of soil in the tract surveyed, viz.:—

1. Mathyal or methel, *alias* athala.
2. Doras.
3. Bali.

The *first* is a clayey soil fit for pottery, splitting in the hot weather, and tenaciously muddy in rain It is heavy to work, and of a gamboge or dirty yellow colour.

The *second* is clay mixed with sand, hence otherwise called belya; it is of a greyish colour, light to work, and does not form a stiff mud.

The *third* is pure sand, and is found on the banks or in the beds of rivers. It is unprofitable till a clayey silt has been deposited, when

it bears a high value, and is chiefly used for vegetables It has a reddish tinge, indicating doubtless its source, having been brought down by river action from the westward. The true red, or laterite soil, does not, however, occur in the tract now under report.

Descriptions of land.

18. Cultivated *land*, as distinguished from *soil*, is divided as follows:—

1.. Sali.	4. Olan.
2. Do.	5. Dihi mulberry land.
3. Jedanga.	6. Mathal mulberry land.

The soil of these various classes of land may fall under either of the first two kinds of soil. Of sali land there are three kinds, and seven-eighths of the whole land under crop belongs to one kind or the other, the main crop being amun rice.

First class sali land.—Rice cultivation.

19. Let us take the first class sali or sali awwal first. This land will bear three crops in the year; a crop of rice, a crop of khesari (*lathyrus sativus*), and a crop of til (kashta-til). This til has a seed somewhat lighter in colour and larger than that of the krishna til or black til (*sesamum orientale*). The rice may be either sown broadcast or planted out from a nursery; the lower lying land (jalan) is better suited for the former, the higher (danga) for the latter process. In the month of Chaitra, if favorable rain is granted, 16 *jhurs* or 40 maunds (30 pucca maunds q.p.) of manure should be ploughed in, the land being ploughed five times. The seed is then sown broadcast and harrowed in. This should be finished before the end of Jyaistha. The lateness of the rains have not permitted this during the present year. In Ashar, when the rice is about one foot high, the *ails*, or field boundaries, are trimmed, the grass growing on them cut down, and the rice is thinned out by the plough and afterwards set up straight, processes called respectively, *kharani* and *gachhani*. In Bhadra and Ashin the crop must be weeded. In Kartik the rice begins to flower. Now you must irrigate and continue to irrigate till the grain sets. If there be no rain at this season, two or three irrigations will be needed. If there be rain, one irrigation in Kartik will suffice. When once the grain is set no further care is needed, except to watch the crop against thieves, biped or four-footed. By the end of Agrahayan the crop ought to be ripe. The harvest is in Poush, when the crop is cut and carried to the threshing-floor, and the grain beaten out against a board. This method is adopted to save the straw for thatching.

Khesari.

The khesari crop is sown in among the rice as it begins to ripen on the moist and muddy land. This crop requires no care, and ripens in Phalgun, when it is cut and threshed.

Til

If you want a third crop, put in 40 maunds of manure as soon as the khesari is off the ground, and plough three times. Early in Chaitra the til is sown broadcast. As the plants come up, two irrigations are necessary. The crop ripens in Jyaistha and should be off the ground in time to allow of manuring and ploughing for an amun rice-crop.

20. The planted rice will, however, best suit as a crop to succeed til, for it is kept in its nursery till Ashar, when it is planted out in holes nine inches apart. When the rice is planted out, it must be weeded and earthed up in Bhadra; from that point the cultivation follows that of rice sown broadcast.

Planted rice

21. The following is an attempt to estimate the net profit of a beegha of first class sali land under three crops:—

Profits of cultivation.

Expenses.

	Rs.	A.	P.
Rent	4	4	0
Cost of seed and cultivation of rice-crop ..	3	9	0
Khesari seed and threshing	0	6	3
Seed and cultivation of til crop	2	10	0
	10	13	3

Gross profits.

	Rs.	A.	P.
Four bis paddy at two rupees	8	0	0
Eight pan straw...	1	8	0
Two maunds khesari	1	8	0
Khesari chaff, two jâlis	1	0	0
Four maunds til...	6	0	0
	18	0	0

This would leave a net profit of Rs. 7-14-9. The rent has been put at Rs. 4-4. In fact the rent of land of this class varies in different parts of the tract from Rs. 3 to Rs. 4-4, the rates being Rs. 3, Rs. 3-8, Rs. 4, and Rs. 4-4.

The seer used in the above calculations and elsewhere, unless the contrary is expressed, is the local seer of $58\frac{10}{16}$ tolahs. The table of measure-weights for rice is as follows—

10 (local) seers = 1 arhi,
20 arhis = 1 bis.
16 bis = 1 poti.

The cost of cultivation is estimated on a fair rainfall; should rain be scanty, the expense of irrigation will be much enhanced. The cost of cultivation of rice planted out is said to be a small fraction less than that of rice sown broadcast.

22. Sali land of the second class is a little poorer than first class land; there is no difference in colour. The best sali land is a little lower than sali land of the second class, and so when heavy rain falls gets all the silt of the higher level lands. It is also of course easier to irrigate. The sali land of the second class will yield two crops, amun rice and til. The yield falls a little short of that of first class sali land. The method of cultivation is the same as in the best sali; the rates of rent range from Rs. 2 to Rs. 2-8, being Rs. 2, Rs. 2-4, and Rs. 2-8.

Second class sali.

The total expense is put at Rs. 8-11, and the gross profit at Rs. 11-8, leaving a margin of only Rs. 3-13.

23. The third class sali land is higher still; the yield of rice is still less, that of til about the same. The rent rates are Rs. 1-8 and Rs. 1-12 per beegha. In this land the rice is mostly planted. The net profit is estimated at Rs. 2-7 per beegha.

Third class sali.

24. The Deputy Collector observed a great variety of kinds of amun rice, though not so many as are known in some other districts. He enumerates the following:—

Kinds of rice sown.

1. Sona kete.—Reddish; with spiculæ, which fall off as the grain ripens.
2. Ajan.—White, with small spiculæ. This grows in low bheel land and rises to the surface of the water. It is, however, sown in the ground, not cast upon the waters, as certain other kinds of rice known in Backergunge and elsewhere.
3. Jata.—A white grain with small spiculæ.
4. Paramanya sali.—White grain with a dark husk. Those who suffer from "sul," or cholic, are said to benefit from eating this rice.

The above four kinds are large-grained. The following are smaller:—

5. Laghu.—Reddish in colour.
6. Nagbhashani.—White; very small and roundish.
7. Barbati sali.—White, with black husk.
8. Ramsali.—White, a short grain.
9. Parbat Zira.—Dappled, very small.
10. Muktahar.—White and very small, with small spiculæ.
11. Kushum sali.—Reddish, small spiculæ. When cooked emits a smell like that of the *bel* flower, intoxicating to the person cooking, whence it is also named "randani-pagal."

The ordinary cultivators do not grow the smaller grains in any quantity, as they do not give the same sense of repletion as the larger grained rice. The smaller grains are affected by the well-to-do, and the common peasant grows a small patch of the more delicate varieties for the festival of the "Nabanna," or *harvest home.*

25. We now come to cultivated land of the second kind, known as "Do-Zamin." This is the land for aous rice. The crops noted on the margin are also grown in this land, which lets for a higher rent than sali land, and is coveted because there is a greater choice of crops, and therefore less chance of total failure. It is divided into two classes. In first class "Do land" rice is both sown broadcast and planted from the nursery, mostly the latter. The process is the same as for amun rice; but the aous rice flowers early in Ashin (when irrigation is necessary) and begins to ripen early in Kartik, in which month it is cut. The land is then manured and ploughed, and a cold weather crop (one of the first seven of those given above) is

"Do" land—crops grown

1. But or channa (*cicer arietinum*)
2. Musari (*cicum hirsutum*)
3. Country peas
4. Wheat
5. Tisi or maisna, flax (*linum usita tissimum*)
6. Mustard.
7. Khesari.
8. Kashta til
9. Sugarcane

sown broadcast and ploughed in. Bút, musari, peas, tisi, mustard, and khesari, require one irrigation; wheat must be irrigated three times. After removal of the cold weather crop you may manure and sow til, and so get round to a rice-crop again.

Sugarcane cultivation

26. But if you intend to devote the ground to sugarcane next year, you must not sow til, nor is sugarcane generally grown after wheat, the latter being an exhaustive crop. Sugarcane itself is still more so, and cannot be repeated for three years. For sugarcane a large quantity of manure is needed; 200 kutcha maunds to the beegah if possible. The land is then ploughed five times; meantime a nursery is made on the muddy edge of a tank, the top shoots of last year's canes being put down horizontally in the earth, which is kept well moistened. When the cuttings begin to throw out vertical shoots, they are taken up and put in another bed prepared with earth and rich manure, generally in the cultivator's homestead. Here they are carefully screened from the sun, and watered morning and evening. In Baisakh or Jyaistha the plants are put down in the field in furrows two feet apart, and at a distance of four or five inches in the furrows. The plants must be well watered and earthed up Ten or twelve days afterwards, the earth between the rows should be dug up and heaped into ridges, channels for irrigation being cut across. The operation must be twice repeated, and the field kept clean of weeds with the hoe. Towards the end of Sraban the trash must be stripped off and two or three plants tied together; this is called a *mera.* The stripping of trash must be repeated twice. By the end of Ashin the ridges should all be broken down and the soil levelled, trenches being cut three yards apart each way to allow the rain to run off. The beds thus formed, each three yards square, are called gai (গই). In Kartik the plant should be protected against storms by tying the heads of three or four meras or bunches together, and thus enabling them to resist the force of the wind. Monthly irrigation is now necessary. From Phalgun to Chaitra the cane comes to maturity. The yield of one beegha is put at eight "palas," a pala being the day's yield of one sugar-mill or "sal." The morning after the canes are crushed, the juice is boiled into goor. The canes are used to boil the goor, and the ashes make manure. The use of the mill is charged at two rupees a day. The sugarcane grown in the tract is known as the "kajali." It has a dark purple stem when stripped of trash, and grows about 7 feet high, with a circumference at base of about 3½ inches.

Estimates of profit

27. The estimates of profit on "do" land of the first class are as follows:—The rent is put at Rs. 4-8, and the expenses of rice cultivation at Rs. 3-1 The land should yield four bis of paddy and eight pans of straw, value Rs 9-8. Thus the balance in favor of cultivator on the rice-crop is taken at Rs. 1-9. To this must be added the net profit of the winter crop. The following are the estimates for each crop of the kind in the tract:—

	Cost of cultivation			Value of produce			Net profit		
	Rs	A.	P	Rs.	A.	P	Rs.	A	P
Bút or channa	2	13	0	5	0	0	2	3	0
Til	2	10	0	6	0	0	3	6	0
Musari ..	2	8	0	5	4	0	2	12	0

	Cost of cultivation			Value of produce			Net profit		
	Rs	A	P.	Rs	A.	P.	Rs	A	P
Peas	3	3	0	5	8	0	2	5	0
Maisna	3	3	0	4	8	0	1	5	0
Mustard	2	11	0	4	4	0	1	9	0
Khesari	2	1	3	2	8	0	0	6	3
Wheat ...	3	3	0	6	0	0	2	13	0

Thus the total net profit on a beegha of first class "do" land would be from Rs. 1-15-3 to Rs 4-15.

Sugarcane is by comparison a capitalist's cultivation The result is thus estimated—

	Rs	A	P
Rent	4	8	0
Cost of cuttings	5	0	0
Cultivation, &c ...	28	13	0
	38	5	0

The beegha of land is calculated to yield 32 maunds of goor at Rs 2 a maund, or Rs 64, leaving a net profit of Rs. 25-11 per beegha.

For first class "do" land there are three rates prevalent, viz, Rs. 4, Rs. 4-4, and Rs. 4-8.

Second class "do" land

28. "Do" land of the second class is inferior in yield, and is not so easily irrigated In this land the same crops may be grown as in "do" land of the first class, or, instead of the cold weather crops mentioned above, onions or garlic may be put down These vegetables thrive in land of this class The cultivation of onions is conducted as follows:— After cutting the rice in Kartik, manure with 40 maunds of manure to the beegha, and plough seven times Then 1½ maunds of seedlings are planted in rows one foot apart, and with two or three inches between the plants in the same row. The earth must be continually banked up between the rows, and nine irrigations are required The crop is ready in Chaitra. Garlic is grown in the same way, except that half the weight of seedlings will suffice, and that the seedlings are put down four or five in the same hole. After onions, kashta til may be sown.

29. The rent of "do" land of the second class is put at Rs. 3-8, and the net produce of the rice-crop is estimated barely to cover that rent. The expenses of the cold weather crops grown in the first class "do" land are the same as already given, while the yield is less. Thus the total net profit of the land according to the cold weather crop will be as follows :—

	Rs	A	P
Bút or channa	1	0	0
Til	1	15	0
Musari	1	8	0
Peas	1	0	0
Maisna	0	3	0
Mustard	0	6	0
Khesari	0	4	9
Wheat	2	6	0

Sugarcane in this land is estimated to yield a net profit of Rs 10-8 he beegha.

If onions are grown in the cold weather, the profit on 30 maunds, sold for Rs 37-8, is put at Rs. 16-3; while 18 maunds of garlic, against a cultivation cost of Rs. 20-6, will yield a net profit of Rs. 15-10.

The rates of rent are Rs. 3 and Rs. 3-8 a beegha

"Jedangah"

30. The third kind of land is known as "jedangah" It is a high poor land (niras, or juiceless, is the word used to describe it), and is found both near homesteads and in the open plains It bears the crops noted in the margin. Orchards of mango, jack, and other fruit-trees, are also to be found on this land Other crops are not grown on this kind of land in the tract surveyed, though flax might be grown. This land is difficult of irrigation, and bears but one crop in the year. The cultivation of arhar is carried on as follows:—

Arhar
Son (sunn) or so-called hemp (*crotolaria juncea*)
Begun or brinjal (*Solanum melongena*).

In Chaitra put in 40 maunds of manure and plough twice. In Sraban, plough once and sow broadcast 10 seers of seed, and harrow in In Bhadra weed the crop In Magh, when the plant begins to flower, one irrigation is needed The crop ripens in Phalgun and is generally cut in the following month.

31. The rent of this land is put at Re 1 or Rs 1-4 a beegha, there being two rates. The net profit of arhar is said to be Rs. 1-9 the beegha The kind of arhar grown in this thana is the "chaitila" arhar; it grows six feet high, and the grain is larger than the Maghi arhar, and bears little reddish marks on the husk.

Sunn.

32. If you will grow sunn, manure and plough twice in Chaitra and Baisakh Early in Jyaistha, plough, sow, and harrow in This is a rainy weather crop, and comes to perfection in Bhadra. If rain falls short, one irrigation will be needed. The crop is cut in Bhadra, and after cutting off the soft tops the plants are retted for about a week, and then the fibre is cleaned by striking the plant upon the water, and thus washing out the woody portions set free by the previous retting. The woody fragments are dried as well as the fibre, and the former sold to make sulphur-tipped matches. The cost of cultivation is calculated at Rs. 4-13, including Rs. 1-4 of rent. The produce is worth Rs. 8-8, viz.:—

	Rs.	A.	P.
Four maunds of sunn ...	8	0	0
Woody matter	0	8	0
	8	8	0

There is no trade in sunn, the plant being only grown in small patches of half a beegha or so, and the produce locally consumed in the manufacture of rude string for domestic and agricultural uses.

Beguns (*Solanum melongena*)

33 To grow "beguns" or brinjals, you must, in Ashar, make a nursery. The ground for which the plants are ultimately destined must be manured and frequently worked with the plough and ridged up with

the hoe. In Sraban the seedlings are planted out three feet apart; the land must be kept well ridged up, and twelve irrigations are necessary. The cultivation is therefore an expensive and laborious one. It is estimated to cost Rs. 10-2, including rent, while five kahans of the fruit will sell for Rs. 17, leaving a net profit of Rs. 6-14.

Orchards.

34. To prepare jedanga land for an orchard, manure and plough; in Ashar plant plantains four yards apart, and plant young mangoes and jacks among. The plantains afford shade to the young trees. It will be necessary to water and to dig or plough up the land between the plants occasionally. When the fruit-trees are in course of time well established, the protecting plantains are cut down. The above practice is, however, not largely resorted to in Barawan thana. Then there is a tree called aich (*Morinda tinctoria*), which grows about twelve feet high and six inches in diameter, with a leaf like that of the kurchi tree, or *Wrightea antidysenterica*, and branches growing in all directions. The root yields a red dye, whence the gatherers of sola name it "barnak." The Jugis use the dye for their thread, and thread so dyed is called "koshta," and used for red edgings to *saris* and the like. The Jugis grow this aich, and in among the trees plant young mangoes and jacks. When the latter attains some strength of growth, they cut the aich and abandon the ground to the owner, which they have meanwhile held for nothing, on condition of planting the young fruit-trees and the aich to overshadow them. For the aich, land must be manured and irrigated. The plant is easily propagated by cuttings or layers, and should be put down in Ashar. The land should be ploughed up occasionally and the roots earthed up. To extract the dye, the roots are put in a rice-pounder and the root bark stripped off; they are then steeped in water with alum and some other ingredient, the nature of which the Jugis would not divulge. The result is a red liquid, in which the thread is dipped three or four times at intervals of 24 hours. There is but little of this aich grown. The Deputy Collector only saw some seven beeghas in one village. He has included it under bagan, or garden land.

"Olan" land.

35. Olan land, is land covered with silt on the edge of rivers. It is very good land, but liable to inundation, as its name (*olan*, low) indicates; it is generally devoted to the growth of cucurbitaceous plants.* For this crop you must manure in Agrahayan and plough twice. Plough once again in Phalgun, and harrow; then dibble in the seeds, three or four together, in holes one yard apart, and water: keep continually watering, and weed around the holes. The tarmuz and the kankur are eaten raw, the latter also cooked; the rest are eaten cooked. They generally are in season from Chaitra to Baisakh, but the two last will last nearly all the year round. The rent rates of this land are said to be Rs. 3, Rs. 3-8, and Rs. 4 a beegha, which last raises the total cost of cultivation to Rs. 9-5, while the value of the crop is estimated at from Rs. 12 to Rs. 14, according to the kind of vegetable grown.

* Khero.
Kankur (*Cucumis usitatissimus*).
Tarmuz, or water melon (*cucurbita citrullus*).
Ujje
Kurala
Lau, or gourd (*cucurbita lagenaria*).
Dingpull.

Mulberry land (1). Dihi tut.

36. *Mulberry* lands are of two kinds: the first, known as dihi tut, is high land near the village, and suited only for mulberry, which thrives in it. Near Gonotea mulberry is said to be grown in paiwasti land, or alluvion. Two kinds of mulberry are grown—the "bagari" and "kajali." The bagari has a large thick leaf. It is said not to be liked by the worms, and is not given if the kajali is to be had; hence it is not much grown The kajali has a smaller and softer leaf.

37. To plant mulberry, you must plough three times in Bhadra and afterwards dig up with the hoe; put in 120 maunds of manure, and plough in once, making straight furrows. In Ashin plant the cuttings nine inches high, one foot apart, water, and press down the earth. In ten or twelve days the cuttings begin to sprout. In Kartik dig up round and earth up the plants, and irrigate twice at an interval of ten days. In Agrahayan plough up once. In Chaitra spread a top-dressing of earth from the bottom of a tank. During the hot weather irrigation must be kept up, and during the rains the field must be weeded monthly. In Bhadra of the second year the plants should be pruned. The land must be kept highly manured, when the plants cut for each bund or crop of worms will last for five years. This is perhaps an under-estimate. I am informed that good land, well manured, will grow mulberry for 20 years. Reeled-off chrysalides are considered good manure.

(2). Mathal tut.

Mathal tut is high land in the open; it is not so strong as the dihi mulberry land. The cultivation is the same as for dihi tut.

Estimate of profit.

38. The following is the estimate for dihi mulberry cultivation:—

	Rs.	A.	P.
For the first year, rent	8	0	0
Tillage, &c.	20	7	0
	28	7	0
For the second year	17	13	0
Or for the two years	46	4	0

The yield of leaf may be taken at 80 *bojhas* a year, fetching, in fair years, one rupee per *bojha*. But the crop is a very risky one, as if the worms die the mulberry is a drug in the market. However, taking the above estimate as approximate, we should get the very large profit of Rs. 56-14 a beegha.

The estimate for mathal tut is less, as the yield is only put at 60 *bojhas*.

There are, according to the Deputy Collector, four rates of rent for dihi mulberry land—Rs. 5, 6, 7, and 8; and three for mathal mulberry —Rs. 3, 4, 5, and 6. These rates are somewhat higher than, I have been informed, prevail near Gonotea.

Safflower.

39. A few plants of safflower are to be found growing round the mulberry fields of Mussalmans, and the flower is used as a dye for thread.

Orchard in mulberry land.

40. Orchard land, or *bagan*, generally belongs to the class "jedanga," and is assessed accordingly. Orchards are sometimes made in mulberry land, but the rent is so heavy as to discourage an investment which has to wait some years before it sees its profit.

Part III, D 1 of Board's forms, and estimates of produce and profit.

41. An attempt has been made to fill up the Board's form Part III, D 1, but the revised form has not, as far as I can find, been received; and difficulties in filling up the existing form are noted in the column of remarks The Deputy Collector's estimates of profit are also given in full.

Village site.

42. The rates for basta land vary from Rs. 5 to Rs. 14 per beegha, according to convenience of situation, nearness of water, and the like considerations. Udbasta, or land about the homestead, is let at three rates, —Rs. 2-8, Rs. 3, and Rs. 4. A few chillies and plantains are grown round the homestead, and cucurbitaceous plants, pumpkins, and gourds, are trained on the thatch.

Wild or "devil's" cotton.

43. In or near the homesteads of two villages, Bamanpara and Anukha, the Deputy Collector noticed a peculiar kind of cotton known as bankapas (wild cotton), or ramkapas (devil's cotton). He describes it as a tall woody bush, bearing a reddish flower, and a small boll with a seed pointed at one end, yielding a white cotton and flowering all the year round. I took the Deputy Collector to see the plant in the jail garden (which the Commissioner of cotton and commerce with the Government of India declared, from inspection of leaves, flowers, and bolls, to be Sea-Island cotton degenerated in the process of acclimatization), and he at once declared it the same plant as the ramkapas he had seen in the villages named above. The villagers all averred that the introduction of the plant dates from before the present generation, and the Deputy Collector maintains that the shrub is mentioned in some Sanskrit treatises on medicine. If this identification be correct, and the fact that the leaves of this cotton are now used medicinally tends to confirm it, the jail garden cotton may not be Sea-Island cotton after all, or if Sea-Island cotton, it must be naturalized for a longer term of years than was before supposed. It is said that one large shrub will yield three local seers of uncleaned, and some eleven chittacks of cleaned cotton.

Rivers, tanks, &c.

44. Of the area covered with water, tanks are liable to assessment according to the land in which they are dug. They are for the most part made in jedanga and uncultivated land; the very fact of the high level, which lowers the rate of rent of the former and keeps the latter exempt from tillage, making the site most opportune for a tank intended to irrigate lower lands. The tanks in the tract are numerous, but foul. A vegetable, known as lalita sak, is grown in small patches on the edge of tanks.

Uncultivated land.

45. Uncultivated land of classes 1 and 2 (*i.e.*, land now uncultivated but formerly cultivated, whether within three years or at an earlier date) falls within the jumma or holding of the ryot, and is assessed even

though lying idle. Such land may be left fallow from deposit of sand; or, on the other hand, it may be land so high or so situated in regard to water as to make irrigation too expensive, and therefore, only brought under cultivation when there is a plentiful rainfall Rent is nevertheless paid for such land according to its class.

Unculturable land.

46. The land classed as unculturable is mostly the highest land of all. It is generally a stiff clay. It often contains nodules of lime (ghuting) and perhaps produces a scanty herbage. It is land which it does not pay the ryot to till, but which might remunerate a capitalist. The ryots seem averse to any attempt to open up this small reserve of land hitherto untilled, and view any such attempt as unlucky. In village Chohatpur, the Deputy Collector saw a piece of land lying barren amid much cultivated land of the same quality of soil. The barren patch was somewhat higher than the surrounding land, but was irrigable from a neighbouring bheel. It bore marks of tillage, and the villagers said that an enterprising Mahomedan from another hamlet had commenced operations on it, but that in a week his children and cattle all died, and he desisted from the inauspicious undertaking. Unculturable land contributes some little to the stock of grazing land, though the yield of grass is scant. It belongs to the zemindar, who does not charge the ryots for grazing their cattle upon it.

Grazing-land.

47. The land entered as grazing-land is not in the nature of regular grass farms. It consists of small plots of common attached to each village, and yielding a poor herbage. No rent is charged for the right of common over this, and there is a tacit understanding that it shall be reserved from cultivation by the zemindar. Probably, experience has taught that the area under grass of any sort, has been reduced to the very minimum. This common-land and the chance herbage of uncultivated and unculturable land, and of the ails of the rice fields, afford all that the plough cattle of this tract know in the way of grazing.

Distribution of produce.
Rice.

48. We thus have got a view of the main products of the tract, and may briefly consider how they are, in the first instance, absorbed. As a rule, the mainstay of every cultivator is his rice-land. Mulberry, sugarcane, vegetable, and cold weather crops are sold for cash to pay the rent; or if there be anything over it goes towards expenses, but the rice-land yields its cultivator food directly. Each endeavours to save enough rice for the food of himself and his household; but of late, seasons are said to have been bad, and the ryot has fallen into the hands of the rice-lender. The system of rice advances is worked thus:—those who borrow before the end of Bhadra have to pay 50 per cent. interest in kind in Phalgun, or, if they cannot pay, the next Phalgun interest, also in kind, runs at 50 per cent. per annum. Those who borrow after Bhadra pay 25 per cent. only for the fraction of the year, and 50 per cent. for any succeeding year. Phalgun is the month for settling accounts with the rice usurer. But ryots with a surplus of rice will sell in Poush, or thereabouts, if there be a demand.

49. The Deputy Collector estimates an average yield of rice for the tract surveyed at about 26,000 potis of amun paddy, and 1,500 potis of aous paddy, or 27,500 potis in all; a potis is 16 bis or 80 maunds

local weight. This calculation would, therefore, give the yield of paddy at about 16,50,000 pucca maunds. If this estimate be near the truth, it would give about 26 maunds of paddy, or 13 maunds of cleaned rice for every head of population; or, supposing it all to be consumed within the tract, not far short of one seer and a half of cleaned rice per head. The Deputy Collector maintains that among a population wholly agricultural, and living mostly by out-of-door labor, the average consumption all round exceeds one and a half seers. But from enquiries I have made, I think he must be widely mistaken, and that if we allow an average daily consumption of one seer of cleaned rice = two seers of paddy, we shall certainly not be under the mark. This, on a population of 64,000, would give a daily consumption of 3,200 pucca maunds of paddy, equal to a yearly consumption of 11,68,000 maunds. There would thus be a margin of some 5,00,000 maunds for export; and judging from the traffic on the East Indian Railway, though it is impossible to say how much comes from the tract in question, I believe that rice must be exported in considerable quantity.

Mulberry.

50. Next in importance to rice, though *longo intervallo*, comes the mulberry cultivation. The leaf is either sold to others who rear silkworms, or, if the cultivator himself or his family follow that industry, is devoted to the food of his own worms In good silkworm years the crop is a very profitable one, but, as already remarked, the cultivation is risky, as, if there be disease among the worms, the leaf is valueless. On the other hand even a short crop of mulberry gives a large margin if only the brood of worms succeeds. The mulberry is of necessity an article of purely local consumption. The silkworm-rearing industry will be noticed further on.

No great staples except rice.

51 Thus we have no indigo, no cotton, no jute, no tobacco, and no betel grown within the tract The Deputy Collector reports the people much wedded to custom, and unenterprising in the way of embarking on new crops. Even in vegetables they are conservative; and the potato, which is naturalized in places on the banks of the Adjai, has not found its way into the Barawan thana. The great link between the tract and the commerce of the great world is the silk trade.

Rents

52. It has not been found possible to fill up the form Part III, D III, fully, as the rent depends not on the crop grown, but on the kind of land; and the chief classes grow more than one crop. Partly custom, and partly some innate fitness in the land have, however, appropriated certain crops to certain classes of land. The rents appear high. The rates entered are those charged to a new tenant taking up land; but the Deputy Collector assures me that even ryots with rights of occupancy pay rents little short of what has been set down. But, as already observed, I think all these figures of average rates of rent, prices of produce, yield of produce, &c., must be accepted with very great caution. Baboo Janoki Nath Mozoomdar himself admits that, in the absence of any assistance from zemindars, he had to depend greatly on the statements of the ryots themselves. They are not likely to have given an altogether impartial statement of their conditions of life

Irrigation.

53. The practice of irrigation has been frequently mentioned in the descriptions of the methods of cultivation. Almost the whole tract, in the absence of perennial rivers, depends much on irrigation. This is mainly carried on from tanks, and in one of two ways. These methods are not peculiar to the district, nor indeed, to India, and a brief description will suffice. The first is called "cheni," which the Deputy Collector considers a corruption of "sechani," the genuine term for irrigation. In this method two men stand opposite one another, having the water-supply between them, a sort of scoop of matting has strings tied to each of the four corners; of these, each man holds two. The strings are slackened and the scoop dipped in the water. The body is then thrown backward and the arms raised; a certain quantity of water is brought up in the scoop and tilted over into the higher level watercourse. Four men are required to work this instrument for a whole day, and these four will lift enough water to irrigate one and a half beeghas. The height of the lift may be about five feet. The second instrument is the "duni," or "drauni." It consists of a trough with a bend in the middle, or rather towards one end, the two portions of the trough being of unequal length. The shorter end is closed, and is called the "ankra." The whole moves upon a pivot, and to the end of the ankra is attached a rope which is fastened to one end of an elevated lever, the other end of the lever bearing a counter-balancing weight. The "ankra" is dipped in the reservoir from which it is desired to raise water, and, when filled, the weight is released and drags up the closed end, pouring the water through the open end of the trough on to the higher level. Two men can thus raise enough water in the day to irrigate a beegha of land. The height of the lift is, however, less than with the "cheni."

Manure.

54. Manure is used in all cultivation in the tract. The quantities entered are, however, rather those which it is considered desirable to use than those actually reached. The fact seems to be that the land is not fallowed, and does not obtain enough manure to replace the wear and tear of uninterrupted cropping. The country is almost bare of trees. The pipal (asatwa), the bar (*F. Indica*), the babul, the jack, and the mango, are to be found, but they are not used for firewood; hence, cow-dung cakes (ghosi) are almost universally used for fuel, and the quantity of manure of this kind is materially diminished. Cattle are not kept for the purpose of creating manure; the grazing ground available is not sufficient to admit of this, and the cultivators keep no more than the stock sufficient to work their fields, to carry the produce to market, and to give a little milk for their household uses. However, cow-house litter, and the litter of the few ponies, and the droppings of sheep and goats are used as manure: as, also, the ashes of the cow-dung fuel. To show how bare of firewood the tract is, and how seriously this want must re-act upon agriculture, the Deputy Collector mentions that he only found one firewood shop, and that at the chief town of the thana, Punchthupi, which lies on the Mooro, and whither small growths of sâl are during the rains floated down from the western jungles. Even the European filatures have to import the wood for their furnaces.

55. The following statement of stock, carts, ploughs, and boats, has been prepared from the village accounts drawn up by the Deputy Collector :—

Stock.

PART III, D I.

Cows	20,714
Bulls and bullocks	16,126
Buffaloes	363
Horses	8
Ponies	14
Asses	8
Sheep	6,384
Goats	3,193
Pigs	125
Carts	45
Ploughs	6,346
Boats	None.

56. The tract also boasts 29 palkis, one elephant, one deer, 6,087 fowls, and 793 ducks. Perhaps, time has been needlessly wasted in attempting an enumeration of the poultry which is bred by the Bauris and the Mahomedans for their own use, and there does not appear to be any export of them, though they are sometimes procurable in the market.

57. There is no trade in cattle, nor any export or import of stock. Those bred are indigenous, and the local breed suffices for local wants. The milk and ghee trade is chiefly in the hands of the gwalas, some of whom keep as many as 100 cows. Ghee, however, is also imported by rail from Ghazeepore and other districts to the north-west. The gwalas of the border villages have a bad reputation for lawlessness, and are said to graze down their neighbours crops with a high hand. Besides the gwalas, the cultivators in many cases keep cows for domestic use; but even the Mussulmans abstain from putting cows in the plough, which, I believe, is not so in Eastern Bengal. Bulls and bullocks draw the carts (few in number, for there are no roads to speak of) and the ploughs, and carry the packs which convey such grain or other merchandize as moves about the region. They are also yoked in the oil-mills, and are generally put to any work *pro re nata*, and not reserved for special uses. Castration, effected while the bull is young, is only performed by low caste Hindus; even among the Mahomedans it is not thought a respectable thing. Buffaloes are kept by gwalas for their milk, the males being only retained to propagate, and not used in the plough. Some are at times sold, to be sacrificed at the Doorga and Kali Poojahs. The buffaloes in this thana are known as "bangar mohish." There is another kind which is stronger and wilder, being only half domesticated: this kind bears a white mark upon the neck and is called "khasrail." The horses, ponies, and asses are very few. Two of the asses are said to be kept for milk, asses milk being considered wholesome for sickly children. The goats and sheep are of an indigenous breed, and are mostly kept by Mahomedans; the goats for milk chiefly. But the he-goat is a frequent victim at Hindu Poojahs, and his flesh is eaten; Mussulmans also eat the flesh of the female. Mutton is to some extent eaten by the Mahomedans. There does not seem to be any local trade in wool, for the blanket-weavers get their material

from Jungipore. Pigs are few; they are kept by Haris, Doms, and Bauris for their own eating.

Fodder.

58. We have seen what scanty grazing there is for the stock. The stand-by in the way of fodder is rice-straw. This is given to cattle chopped and mixed with chaff, oil-cake, and water; this mash is called a "chhani," and one such is given at early dawn. The bull or bullock is then worked till noon, when he is left till evening to pick up such herbage as he can find. After sunset, about eight o'clock, he gets another mash. The oil-cake of mustard and til is considered best for cattle. The milch-cows, kept by well-to-do ryots, are fed in the same way, but have all the day to forage for themselves. Even for the rice-straw the bullock has a competitor in the thatcher. The country being almost all brought under cultivation, there is no thatching grass, *ulu bena*, or the like, hence houses have to be thatched with rice-straw. Salt is not given to plough-cattle. The gwalas keeping large herds cannot afford this diet for their cattle, but eke out the food got by grazing with cut-grass and leaves of the *pipal*, *babul*, and other trees. If other grazing runs short, they camp out beside a *bheel*. The gwalas are said to give salt if a cow's milk fails, thinking to promote thirst, drinking, and by consequence milk: I should doubt the result of the treatment. Salt is also given to cows if they lose a calf, it is said to keep them quiet at milking time.

Conveyance

59. As already remarked, there are hardly any carts, because there are no made roads. The 45 carts found belong to some four border villages on the east of the tract. For the rest, the whole traffic is carried on pack-bullocks, who follow village tracks or the *ails* of the rice-fields; each bullock carries from 1 ½ to two maunds exclusive of the pack or *chhala*.

Ploughs.

60. The plough is the ordinary plough. If the number of ploughs be correctly stated, there would be about one plough to every nine acres cultivated. This seems more than one such instrument and a pair of bullocks would efficiently till; and though the plough is to some extent supplemented by the *khodal* or hoe, the Deputy Collector is of opinion that more land is taken up than the existing stock can properly cultivate. He cites a proverb to show that even rice was expected to get 25 ploughings; but we can hardly put so literal an interpretation on a popular adage. The saying runs—

Shat ek cháse mulá, tár ardhek tulá,
Tár ardhek dhán, biná cháse pan.

"A hundred ploughings for vegetables, half of that for cotton, half of that again for paddy; *pan* does not need the plough." At any rate there seems good reason to believe that what with continual cropping, deficient manure, and insufficient ploughing, the soil of this tract does not yield as much as it might. It is to be remembered, too, that it is not liable to inundation, as the deltaic districts are; inundation which, however disastrous at times for the moment, is very beneficial in its after results.

Boats.

61. There are no boats in the tract, as there are no navigable rivers properly so called; the Moore is, however, used to raft down firewood in the rains

Mines, &c.

62. Form Part III F is blank, the tract surveyed containing no minerals or quarries. The soil lends itself easily to the manufacture of rude village pottery, and the ghooting found in occasional nodules is burnt into lime.

Prices of produce, &c.

63. Form F 1 of Part III, as I understand it, is intended to show the prices of the products of the tract—not the prices of imports. It has been filled up accordingly. But the Deputy Collector also noted the price at *gunjes* of the main imports, and they had better be entered here. They are by the maund of 82$\frac{2}{7}$lb—

		Rs.	A.	P.
Metals ...	Iron	8	4	0
	Tin	61	14	0
	Copper	55	0	0
	Zinc	12	6	0
	Brass	41	4	0
	White metal	68	12	0

		Rs.	A.	P.	
Salt ...	Bombay salt	4	8	3	Kurkutch used almost exclusively, the rock salt, or *saindhab*, being only used by those who profess a specially holy life. I find that at Soory, too, pungah is hardly at all used, though it is certainly unloaded at Synthia.
	Kurkutch	4	7	0	
	Rock salt	8	4	0	
	Black salt	16	8	0	
	Cocoanut oil	15	5	0	
	Ghee (cow's)	31	10	0	The product of the tract in *ghee* falls short of the demand. *Ghee* is therefore among the imports.
	Ghee (buffaloe's) ...	27	8	0	
	Beerbhoom sugar ...	10	10	0	
	Dry tobacco leaf ...	6	14	0	
	Cotton	18	0	0	

Labor.

64. The statement F 2 (labor) is filled up as far as possible. There is, however, as already stated, no separate laboring class in the tract. The amount entered is that generally paid for the agricultural labor of one man for the day. The only skilled laborers whose skill may be considered as on hire are the weavers; we shall see below how they are paid. Carts are very few. The rate entered is that charged for the use of a cart and pair of oxen for a journey. The use of a cart and pair for a morning's agricultural labor in the village is charged only four annas. Pack-bullocks can, the Deputy Collector declares, be hired for one anna per diem for work in the village, or half as much again if you leave the village. A plough and pair of bullocks can be hired for three annas for a morning's work, *i.e.*, from sunrise to noon.

Industries other than agricultures—silk-worm breeding.

65. We now come to the industries other than agriculture. Closely connected with the mulberry cultivation we have the silkworm rearing industry, which, though it has declined, is still of some

importance in this tract. The Deputy Collector reports the existence of three species or varieties of the worm in the tract: the bara palu (*B. textor* of Hutton), the nistri (*B. Crœsi* of Hutton), and the chota palu (*B. fortunatus* of Hutton), or common country worm. But I have reason to believe that the China variety, or the variety known by that name in Bengal, will also be found. It is certainly known at the Gonotea factory, which is not indeed within the tract surveyed, but very close to its southern border. The large worm is an annual, and its cocoons are formed in March. The chief "bunds," or crops of the nistri, are in January and July. The bunds of the other two sorts extend from November to July, within which period the insect runs its cycle some five or six times, according to the temperature—heat accelerating, and cold retarding, its evolutions.

66. The Deputy Collector gives the following account of the breeding of the annual silkworm which yields the best silk. As already stated, the cocoons are formed in March or Phalgun-Chaitra. The cocoons earliest formed are reserved for breeding purposes. The male, or chakra, can be distinguished from the female (*chakri*) by the sharper sound it gives when shaken. In fact, the body of the male chrysalis being decidedly smaller, moves through a larger space in the cocoon, and impinges more smartly on the inner side, yielding a sharper tap. This testing process is called *pat bajana*. An equal number of males and females are selected and put, 160 of each sex, or 320 in all, in a flat basket or *dala*, which is then covered with another inverted. The moths begin to emerge on the eighth day from formation of the cocoon, and continue to emerge till the eleventh day, after which, those that have not emerged must be dead. They come out during the night and early morning, not during the heat of the day. As they emerge they are put into other *dalas*, and the males and females pair for the most part spontaneously and at once. Sometimes, however, they require to be approximated. They are not allowed to remain in copula after 2½ prahars, or say 1-30 P.M. Having fulfilled their function, the males are thrown away, the females being placed on an old cloth in a large *dala*. An hour afterwards they begin to lay eggs, and will lay during the whole night and till the afternoon of the following day. The eggs are then wrapped in two or three folds of cloth and put in a *hari*, which is covered over and made air-tight by a plastering of earth and cow-dung. The vessel is then hung up, and it is thought unlucky even to touch it. The egg season covers the last week in Phalgun and the first week in Chaitra. After the Saraswati puja (in Magh, and sometimes in Phalgun) the *haris* are taken down and opened. The eggs then begin to hatch. The cloth is shaken over a *dala*, and the little worms, then like rice-flowers, drop off into the basket. Those hatched each day are kept separate. The hatching extends over a period which varies from 15 to 25 days, according to the temperature.

The worms are fed as soon as hatched—during the first stage on the tenderest leaves chopped fine, then on whole leaves; while in the last stage the twigs are thrown into the *dalas* whole. The first moult takes place after five days, the successive moults being known as the "methi-kalap," the "do-kalap," the "te-kalap," and the "sad-kalap." The food is given three times a day; before dawn, at noon, and about

two hours after sunset. The worms are kept in *dalas*, which are placed in a wooden stand to hold sixteen such *dalas* one over the other, and as the worms grow they are spread out into more and larger *dalas*. The full-grown larva is about one inch long and three-fourths of an inch in girth, is generally white with the known black markings, but the white is tinged with varying shades of yellow and red in different individuals The tinge is, however, not permanent from one generation to another, and eggs produced from the moths of two white larva will sometimes produce worms of all tinges. This worm has two marks on the head, two on the middle of the body, and two on the tail. From about eight to twelve days after the last moult, the worms begin to form their cocoons. Here again, the temperature much affects the length of the period. The yellowish appearance of the fluid silk seen through the skin indicates that they are about to spin. They are then placed in a tray called a *taliya*, which is partitioned off into spinning holes by slips of bamboo, as shown in the sketch marginally given, and the *taliya* placed with its back to the sun. This much warmth promotes the formation of the cocoon.

After formation, the chrysalides which are not wanted for propagation are killed by exposure to the sun, and the cocoons are then ready for the market. Of this kind 12 kahans (= 1,280 × 12) of cocoons will yield one local seer of silk. The Deputy Collector omitted to ascertain the yield of silk from a given *weight* of cocoons.

67. The cocoon of the nistri is of a golden colour, and 16 kahans yield one seer of silk. There are five bunds of this worm, of which the Sraban or July bund is the best. Two bunds out of the five seem to be altogether neglected, and are called "chhora" bunds in consequence. The eggs hatch in nine or ten days. In the cold weather the cycle is about 60 days, reduced in the hot weather to 40 days. The nistri has two black marks on its mouth.

68. The desi, or chota palu, is in habit very like the nistri, but has no black marks on the body. Its yield of silk is about the same as that of the nistri.

69. The Deputy Collector has been unable to estimate the total outturn of cocoons or silk. The number of cocoons reared is said now to be less than some years ago. Partly the tract has shared in the general influences which have depressed the Bengal silk trade, and partly disease seems to have been prevalent among the worms in this tract. The insect here is said to suffer from three maladies—(1), the "chit rog," (2), "narmja rog," and (3), "katase rog." The first attacks the worm in its final stage. Those attacked turn quite hard and die, and it is said that even the crows, who generally greedily devour the worms when they get a chance, will not eat those which have died of this disease. The second attacks the worms when first about to spin. Little white spots or pustules break out on the body and the worm becomes torpid, and in two or three days melts away in corruption. The third disease attacks at any stage of growth. Those worms which it seizes turn greyish, water runs from the mouth, and they ultimately rot away. All three diseases are believed to be eminently contagious.

The second disease is said to be caused by the east wind, the other two are regarded as unaccountable visitations The description does not seem altogether to correspond with that of either pebrine or gattine—the maladies most dreaded in Europe. No remedies are attempted, and old men say that none ever have been.

70. From the silkworm traders the cocoons pass to the filatures. Sometimes a ryot who grows mulberry will keep worms too, and even reel off cocoons; sometimes the operations of growing mulberry, rearing worms, and reeling silk are kept distinct. The cocoons used at the factories are either bought by direct contract with the breeders or through paikars.

Filatures

71. There are two European filatures in the thana, Manigram and Lashkardihi, one with 100 and the other with 56 pairs of basins; the larger is worked by steam, but the smaller in the old method. During the last March bund these two factories employed 220 men and 56 women, 276 hands in all. Besides these, there are in work 67 pairs of basins in 20 small village filatures. The presence of many basins now idle shows the decline of the silk industry. These village filatures, with perhaps one pair of basins, are in the peasant's homestead and worked in rude way. The raw silk from the European filatures finds its way to the Calcutta and London markets. The raw silk reeled in the villages is partly consumed locally, and partly sent to the Moorshedabad silk market, as also to the silk consuming towns of the North-Western Provinces and the Punjab. Some also finds its way to the looms of Surat and Ahmedabad, or is worked up into dhoti fringes in the Central Provinces. The Bombay weavers buy a kind of raw silk called "bhursut," woven from ten cocoons, and therefore a thicker thread than the five or six cocoon thread which finds favour in the Calcutta market. The local fabrics of silk are plain piece-goods. The Deputy Collector found 22 silk looms in the tract. The loom made for silk is larger and more expensive than that used for cotton cloth The pure *tantis* weave the silk fabrics. They generally work for silk-dealers who come from marts outside the tract and in the Moorshedabad direction, and give advances in cash for the purchase of the raw silk, undertaking to purchase the fabric when finished at the market price of the day. Some *tantis*, however, embark their own little capital. Their women aid them in setting out the woof and filling the shuttles.

Export and consumption of raw silk.

72. The other handicrafts are primitive village industries. The cotton weaving industry seems, however, to have more vitality than is commonly supposed. The Deputy Collector found 577 cotton looms in the tract No cotton is grown locally,* and the cultivators buy North-Western Provinces cotton in the market, have it spun into rude yarn by their women, and take the yarn to the village weaver, who weaves it up into a coarse cloth under the eye of the owner, who, or whose representative, always sits by to see that the yarn is not stolen. This method of work

Village handicrafts

Weavers

* Subsequent enquiries have thrown some doubt on this assertion of the Deputy Collector.

J. G

is called "baithani kam," and the *weaver* is paid two pice to three pice for each yard of cloth produced. The usual breadth is one yard, and a man can make five yards in a day; this would give a daily earning of from As. 2-6 to As. 3-9. The cotton-weaving castes are *tantis*, *jugis*, *konras*, and *kunais* A few use English yarn, but generally the process is as above described. A cotton loom costs five rupees. The Deputy Collector counted 3,434 spinning wheels, which would give about one for every four houses. The wheel is a piece of household furniture, and is found in the house of all castes except Bediyas and Kayasths, whose women may not use them.* Some widows eke out a slender livelihood in this way; the Brahminical thread is said to be a *spécialité* of Brahman widows. Of blanket looms but five were found. Here the shuttle is of wood instead of iron Jugis weave blankets, purchasing their wool from Jungipore. A blanket loom costs Rs 2-8.

* But this I have heard contradicted by Kayasths themselves J. G

73. The Deputy Collector found 59 village forges. The blacksmiths' work is chiefly in implements of husbandry, the iron sheathing of the ploughshare (phal), the khodali, the kast, or sicle, the phaura, the weeding spud, and the pasuli, or small phaura used in digging up the earth around plants. The village blacksmith keeps the ploughshares in repair, and for this receives eight annas, or one maund of paddy in the year for each plough mended.

Blacksmiths' forges.

74 The Deputy Collector has been at the trouble to enquire the cost of these implements, and I may as well insert the result of his enquiries here. A plough costs Rs. 2-5 made up as follows :—

	Rs	A	P
The "mura" or wooden share	0	4	0
The "ish" or pole of wood	0	4	0
The "phal" or iron sheathing of share	0	8	0
The tail of wood	0	1	0
The yoke of wood	0	6	0
The making	0	8	0
The "ron" or leather band fastening the whole together ...	0	2	0
The nose strings, &c, for the bullocks ...	0	4	0
Total ...	2	5	0

A bamboo harrow costs two annas; a kodali, Re 1-4; a sickle, two annas; a phaura, Re 1-4; a weeder, As 1-6; a pasuli, two annas. The whole stock-in-trade of a village blacksmith may be worth Rs. 25.

75. Potters' wheels numbered 200. The kumhars make the usual village pottery The Deputy Collector observed nothing distinctive either in form or mode of making. The consumption is all local.

Potters

76. There were ninety-five oil-mills kept by men of the Kalu caste. The ryots either sell their oil-seeds to the Kalus, or get their seed pressed at their mills An oil-mill, or ghani, with four bullocks to relieve each other, will crush the oil out of four supplies of seed in the day The ryot pays two pice and the oil-cake for each filling of the

Oil-mills

press for the use of it and the bullocks. If he does not give the oil-cake he pays an extra pice in coin. A ghani costs from Rs. 4 to Rs. 5; the traffic in oil is quite local. It is possible that some oil-seeds may find their way from this tract to Calcutta, but not much I think.

Other handicrafts or trades.

77. Doubtless other village industries exist,—the sweetmeat-makers, the thatchers, the mat-makers, &c.; no workers in brass or white metal were found. The tract is supplied with the usual metal utensils from Kandi, where there is a considerable industry in this kind. A statement in the form Part III G accompanies.

Commerce and trade.

78. The commerce and trade of the tract has not been very thoroughly investigated; commerce, however, in the large sense of the word can hardly be said to exist. There are only three hâts or weekly markets in the thana, at Panchthupi, Rajhat Siruli, and Hatkaturi, which serve in a small way as foci to collect both imports and the surplus local produce preparatory to distribution. Panchthupi is also the scene of a small trade in hides and firewood; one of the Calcutta Mahomedan hide dealers has an agent there, and the following are given as the prices of hides :—

	Rs	A.	P.		Rs.	A.	P.	
Cow hides (large) ...	2	0	0	to	2	10	0	each.
Ditto medium size ...	1	4	0	„	1	10	0	„
Calves' skins	0	8	0	„	0	9	0	„

Goats' skins are also bought up. The total annual export may amount to Rs. 1,500 worth. The firewood trade is said to be in the same hands. Twelve young trees of the sâl can be bought up the Moore for one rupee; they are rafted down that river, and sold for Re. 1-4 at Panchthupi. The use of firewood is quite localized near that village. At the hâts, or market villages, will be collected the rice which the cultivators save over and above household consumption, or which they sell to meet immediate demands for cash. Part of it will find its way to Synthia and be exported by rail, part of it will pass into the hands of the rice usurer. Into the hands of the latter much of the crop doubtless passes direct; nor are practitioners of this class confined to the large villages. The Deputy Collector made an estimate of the rice stored by mahajuns in the six villages named in the margin, and found the numbers of potis of paddy entered against each, or about 35,000 maunds of paddy in all; this was in the month of March. Doubtless, the stores are reduced since then. The silk for export probably passes only in very small quantities through these hâts, being either consigned by the European planters to the house in Calcutta, or bought up in detail by native dealers from Moorshedabad. The imports pass into retail sale either through the hâts, or direct to the village from the bazars at the railway stations; and in this way the salt, ghee, sugar, tobacco, betel-nut, and pan, metals and wares of metal, cotton and cotton yarn, cotton piece-goods, and the other simple needs or luxuries of life, almost reduced to its simplest expression, filter down to the actual consumers.

Panchthupi	273	potis
Jugsara ..	200	„
Mourakandi .	52	„
Kanbera .	48	„
Andulya	8	„
Saphaldaha .	12	„

79. The return of charitable institutions Part III K, and the return of religious institutions, Part IV A, are left blank. I think the Deputy Collector has somewhat misunderstood the purport of the latter form. As to the former, he tells me that at Panchthupi there is an *atith shala* kept by the zemindar of the place, at which some ten or twelve travellers per diem may be logded and fed. If they fall sick too, they are treated by the zemindar's son, who appears to have some lights on physic, and is said to bear the reputation of a successful practitioner in dealing with the epidemic fever. The Deputy Collector considers leprosy prevalent in the tract. He himself saw 30 persons suffering from this most pitiable malady.

Charitable institutions and religious institutions.

80. In the course of his enquiry into stock, the Deputy Collector took note of the number of houses and recorded the caste of the inhabitants. According to him the houses numbered 13,018 in all. The census papers give 14,503; but the discrepancy may be due to the fact that houses without stock or implements of some kind were omitted. I do not think that the Deputy Collector's observations of the races and castes have added much to our knowledge on the subject. But I may briefly record the result as given by him, omitting for the most part the somewhat rash generalizations as to character expressed in sesquipedalian Sanskrit adjectives, which in his original notes are attached to each class or caste.

Castes, &c

81 Of the 13,018 houses, 10,529 were the houses of Hindus, 2,489 of Mussulmans. Supposing the average number in each household the same for both religions, this would give 19 1 as the percentage of Mussulmans; but the census yields 21 7

82. The Mahomedans, as throughout Bengal, are all Sunnis. The Deputy Collector says that there were Shias in the Mogul times; but this I should strongly doubt. A few ferazis are said to be found in the tract, and to be recognizable by the way they wear the dhuti. The Deputy Collector divides the Mahomedans into three social grades—(1), the Bhadra, or better class; (2), the chasa, or cultivating class; (3), the itar, or lower calss. The first two classes number 2,410 houses, the last 79 houses. The Bhadra are the relics of an official class, and often hold lakhiraj land, and possess some knowledge of Arabic and Persian. There are but few of this class in the tract. The chasas are illiterate, and cultivate land with their own hands or work as coolies. This class also contributes its quota to the ranks of menial servants, khidmutgars, tailors, cooks, syces, bhistees, and mahouts.

Mahomedans.

83. The lowest class includes the Bediyas and the Patuas, who seem to be aboriginal tribes, half converted to Mahomedanism. The Bediyas sometimes profess Hinduism Probably any form of religion sits lightly on these gipsy castes The Bediyas in Barawan number 56 households The Deputy Collector seems to be of those who wrongly hold (according to Mr. Beverley) that the Mals and Bediyas are the same. They live by begging, snake-charming, and making mats of palm leaves; are dirty in their dress, and drink, both men and women. The Patuas, numbering 23 households, are like unto them in habits and

mode of life. Though professing Mahomedanism, they do not scruple to eke out a livelihood by singing Hindu *pauranic* songs, and exhibiting pictures of Hindu deities. These "itar" Mahomedans do not belong to the four divisions—Sayyids, Shaikhs, Pathans, and Maliks—into which the Deputy Collector distributes the two first classes of Mussalmans. No great distinctions in the habits of daily life are observable between the Mahomedan and Hindu cultivators.

Hindus.

84. The Hindus of the tract are divided by the Deputy Collector into five classes. The first includes—

		Households.
1.	Brahmans	794
2.	Kayasths	175
3.	Vaidyas	5

The Brahmans are all Rarhi Brahmans; the Kayasths are Uttar Arhiyas; the Vaidyas, Rarhi Vaidyas

85. In the second class he puts the following castes:—

		Households.
1.	Agradanis	5
2.	Devela Brahmans	35
3.	Burna "	6
4.	Bhattas "	2
5.	Daibajnas "	9

Of these, the first three castes are degraded Brahmans. The Daibajnas are an astrologer caste. All five castes appear to depend much on alms or honoraria for ceremonial performances. Members of the classes above enumerated will not themselves touch the plough.

86. The third class numbers 5,558 households:—

		Households.
1.	Chhatris or Rajputs	48
2.	Sadgops	2,863
3.	Kamars	71
4.	Kumhars	273
5.	Tilis (or telis ?)	213
6.	Gandhabaniks	271
7.	Malis or malakars...	9
8.	Mairas	129
9.	Tantis	260
10.	Baruis	15
11.	Napits	142
12.	Rajputs	190
13.	Aguris or Ugrakshetris	1
14.	Kurmis	1
15.	Gwalas	181
16.	Kaiburtas	280
17.	Vaishnavas	611

The "Chhatris," or Rajputs, are said to be emigrants of some old date. They do not employ the Brahmans of Bengal, and show some physical and moral traits which would lead one to connect them with the Kshetriyas. But they do not themselves claim that descent, and I have noticed in court that they take special care to pronounce the first vowel of their caste name short—Rajput, not Rájput. They are good cultivators, and hold the plough themselves.

The Sadgops are the great cultivating caste throughout Beerbhoom. A small section, called Kunwar Gop, is, however, said not to hold the plough.

The Kumhars are industrious and honest as times go. They are not charged by the zemindar for the clay they may use. The Deputy Collector believes this due to the fact that they have a considerable power of combination, and would *strike* if the privilege were withdrawn

The Baruis here, as there is no *pan* grown, sell *pan* by retail. This agrees with Mr. Magrath's observation in paragraph 58 of his paper on the castes of Behar, embodied in the Census Report.

The popular view of the Napit's character is expressed in a proverb which says—" The barber is among men what the jackal is among beasts, or the crow among birds."

The Rajputs (No. 12) are very puzzling. They are cultivators, and are said to be the offspring of Kayasth fathers by slave girls. The single Kurmi family seems to be immigrant. About the other numbers in this class the Deputy Collector has nothing special to say. All these castes will cultivate, and do for the most part hold land, though they may have other occupations.

87. The fourth class contains the following castes:—

		Households.
1.	Chhutars—Sutradhars	146
2.	Sonarbeniyas	58
3.	Swarnakars	92
4.	Kalus	244
5.	Sunris	295
6.	Dhopas	27
7.	Chasa Dhopas	131
8.	Jugis	111

These are well-known castes on which the Deputy Collector contributes little new. The Jugis are said not to employ Brahmans, but to have priests of their own caste.

88. The fifth class includes the Hinduised aborigines or semi-aboriginal tribes, viz.—

		Households.
1.	Bagdis	1,455
2.	Haris	191
3.	Doms	193
4.	Kotals	47
5.	Bhallas	310
6.	Konrals	40
7.	Jaliya Kaibartas	65
8.	Baitis	6
9.	Tiyars	19
10.	Lets or Nets	13
11.	Byadhs	1
12.	Kunuis	31
13.	Bauris	90
14.	Muchis	473
15.	Dhángars	82

The Bagdis and Bauris muster in great force throughout Beerbhoom. The Bagdis are divided into two classes—the Duliya Bagdis

and the Kushmutiya Bagdis: only the former carry palkis The Bagdis also fish, their women helping them The Bauris are fowl-keepers; of these classes both sexes drink. The Haris keep pigs, and their women are midwives, attending in that capacity the wives of the highest castes. The Doms keep pigs and work in bamboo; both sexes of these castes drink. The Kotals are chowkidars, as their name imports; the men only drink. Bhalla seems a new name; the caste is a fisher caste, both sexes joining in the work, and both drinking spirituous liquors. The Konras, or Kaoras, are weavers and cultivators; both sexes drink. The Jâliya Kaibartas and Tiyars would be better placed in the fourth class; they are both fisher castes. Of the Jaliyas both sexes fish, and both drink. Of the Tiyars the men fish while the women retail the fish caught, and neither sex is much given to drink. Baitis prepare lime for betel, and beat drums; they are generally sober.

I think "Net" or "Let" is only a soubriquet for the Bagdi caste. I do not know whence derived. A man came before me, called Ishwar Let, who declared himself Bagdi by caste.

The Byadhs are shikaris and beggars. The Kunuis are weavers and cultivators, and both sexes drink. I suspect that some corrupt local pronunciation has led the Deputy Collector to class them separately, but that they are really "Konras." I have not found the name noticed elsewhere.

The Dhangars are immigrants, though, perhaps, settled for a generation or two. They keep fowls, carry palkis, and both sexes are hard-working day-laborers. They are to a certain extent Hinduised, but not to the extent of forswearing alcohol. They are fond of *pachwai*, which they drink in a social way, but not to any great excess

Lessons to be learnt for further prosecution of enquiry.

89. It remains to be considered how the remainder of the work can be best expedited, and the experience so far gained applied to the completion of the task. In the first place, it is clear that the assistance derived from the zemindars has been *nil*, perhaps some steps should have been taken at the outset to conciliate their aid; as far as I can learn this was not done, but the Deputy Collector turned adrift and left without the moral support which he might fairly claim. I think it would be well to address a circular letter to the chief landholders in the rest of the district, explaining that these enquiries are in no way intended to pry into the rights of individuals, but only to arrive at some conception of the nature and amount of the products of the soil, their distribution, the modes of agriculture, the physical condition of the country, and the material prosperity of the people generally. The Deputy Collector would thus be directly taken under Government protection as it were. Left to himself, he has not been aided by the landholding class, and the work of measurement has been enormously enhanced; the expectation that in most villages he would obtain from the zemindar an approximate statement of the land under the several kinds of crop not having been at all fulfilled. For reasons already given, I believed that the landholders could give such information if they chose. I do not wish to support the proposal that the Deputy Collector should be vested with such powers as he would have if a settlement were in progress; for even if

the legality of such a measure were not doubtful, it seems to me that it would be quite opposed to the policy laid down by Government in this matter to make the production of documents and the like *compulsory*. But I think more may be done to strengthen the hands of the enquirer in the way of moral support.

90. Then, as to the mode of enquiry—I think that as far as the classification of land is concerned, the Deputy Collector has been fairly successful, and there is not much to improve upon. Of course, as he gets into tracts of different physical confirmation and soil he will have to adopt a different nomenclature, and he should, as far as possible, map out the district into regions, so to speak, agriculturally homogeneous, without regard to thana or other arbitrary boundaries to which it has been necessary in the first place to resort. If we succeed in enlisting the aid of the zemindars, the Deputy Collector will have less to do in supervising measurements, and will be able to push the work on quicker. The enquiries into the number of stock have been thorough, but must have cost much time. A good deal of other information can be collected at the same time by means of the house-to-house visitation resorted to for the counting of stock. But I think a very closely approximate estimate of stock might be made without actually counting the number of stock in each homestead. The cattle of a village are generally for a part of the day herded together, or collected in two or more large herds, and the numbers of these may easily be estimated.

91. Estimates of quantity of produce are notoriously difficult to make in India. It is the interest of every informant either to understate or overstate the amount of any given crop which a beegha will yield, and what a beegha yields one year it will not yield the next. I suspect that a "sixteen-anna crop," though always referred to as a standard, would be very variously defined. I have impressed on the Deputy Collector the necessity for putting to the test, at the time, when, and place where they are made, all statements on which he relies in regard to yield of land. This test can be applied by comparing the allegations of ryots with those of the zemindar's officials; by comparing the approximation thus obtained in one village, or circle of villages, with similar averages obtained in neighbouring circles, and by working out the estimates to their results, and thus reducing false premises to an *ad absurdum*. For instance, assuming certain rates of yield for each class of produce, it would be easy to select or construct a typical peasant's holding, and to work out the practical results of the assumed rates. If the Deputy Collector found that the calculation resulted in demonstrating it to be impossible for the ryot to live and support his family on the yield of his holding, the premises would naturally become suspect.

92. And this leads to what, in my judgment, is the radical defect of the Deputy Collector's investigation as hitherto conducted, namely, its fragmentary character. He has not sufficiently regarded the enquiry as a whole, and has forgotten that its scope is not to collect a mass of isolated facts or statements, but to supply the means of forming a correct judgment on the material condition of the people. He has overlooked the human aspect of the enquiry, and hence, his facts are not properly co-ordinated and connected *inter se*

93. On special points, moreover, his enquiry has been defective; notably in regard to commerce and trade, and generally the phenomena of distribution. His list of products, too, is somewhat limited. There must be many minor products which he has overlooked. I have pointed out to him that the only way to get a really correct picture of the distribution of produce is to take each product separately and carefully trace it through its several stages. He might also, with advantage, note more particularly the features of the daily life of the people. I have drawn his attention, also, to the necessity of studying the imports of each tract more carefully, and of noting, not only the relations of commerce with other districts, but the movement of traffic within the district itself. The area and distribution of holdings and the kinds of holdings prevalent, with their incidents, should also be more closely studied. This has been rather perfunctorily treated by the Deputy Collector; so much so, that I have not been able to notice the point at all.

94. If these points are borne in mind, and if the mechanical labor of measuring can be reduced, I think the work will progress more rapidly, and the survey of the rest of the district will be more thoroughly done. The Deputy Collector has many qualifications for the task assigned to him. He is observant and intelligent, and his survey training stands him in good stead; but he wants a wider grasp of the subject.

PART I.

E. 2.—FISCAL.

Surveyed and Assessed Area in Acres—Thana Barawan, District Beerbhoom.

DISTRICT.	CULTIVATED				UNCULTIVATED.			Total area assessed	ASSESSMENTS				REMARKS
	Irrigated												
	By Government works.	By private individuals	Unirrigated.	Total	Grazing lands	Culturable	Unculturable waste.		Gross amount.	Rate per acre on cultivation.	Rate per acre on culturable land.	Rate per acre on total area of settlement.	
Thana Barawan, zillah Beerbhoom ..	..	54,345 2 20		54,345 2 20 *b.*	3,136 0 12	595 2 20 *a*	884 1 8	.	..				Village site 2,128 3 14 Water .. 5,834 1 24 7,963 0 38 *a.*—Culturable but not under cultivation during the last three years . 374 2 3 Cultivated within the last three years and now fallow . 221 0 17 595 2 20 *b*—Includes *bagan* or orchard land.

PART III D I.

1.—*Crops Cultivated in Acres, Actual or Approximate.*

DISTRICT	Rice	Wheat.	Other food-grains	Oil-seeds	Sugar	Fibres	Vegetables	Mulberry
Thana Barawan, zillah Beerbhoom	49 299	*	Arhar 255	*	1 207	†	125	2 960

* Land not appropriated to separate crops *Sali* and *do* produce rice and cold weather crops accordingly, all these lands have been entered under *rice* Mulberry land is shown distinctly

† In Jedanga there are grown *arhar, sunn,* and *begunn* These could not be separately measured All entered under *arhar*

F.

Mines and Quarries.

Where situated	Mineral produce	Number of mines	Annual produce	REMARKS
Thana Barawan, zillah Beerbhoom	Blank			*No kunker.*—Here and there to the north-western side shooting lime occurs

G.

Manufacture.

Thana Barawan, Zillah Beerbhoom.

	Class of Manufacture.											
	Silk.	Cotton.	Wool.	Other fibres.	Paper	Wood.	Iron.	Brass and copper.	Building.	Oil machines.	Earthen pot machine.	Thread machine.
Number of mills and large manufactures	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Private looms or small works	42	517	10	.....	.....	.....	59	.....	.....	95	200	3,429
Number of workmen in large works — *Male*	515	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number of workmen in large works — *Female*	109	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number of workmen in small works or independent artizans.	290	517	10	.....	.....	.....	59	.....	.....	95	200	3,429
Number of European Superintendents in large works.	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Value of block in large works	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....
Estimated annual outturn of all works	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

F 1.

Price of produce at the end of the year.

Price of Produce per Maund of 82⅔lb.																								
Rice (paddy).	Wheat	Linseed.	Gúr.	Bút.	Mustard.	Til	Musuri.	Khesari.	Pease.	Arhar.	Onions.	Garlic.	Sunn.	Plough bullocks, each.	Sheep, each.	Fish, per seer.	Vegetables, per kahan, according to kind.	Mulberry leaf per *bojha* of about 1½ local maunds	Remarks
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.		R. A. P.	
0 9 0	2 12 0	2 12 0	2 12 0	1 6 0	2 12 0	2 1 0	1 6 0	1 0 6	1 11 6	1 6 0	1 11 6	2 12 0	2 12 0	25 0 0	0 10 0	0 2 9	From Rs 6 to Rs. 40, according to kind and size, roughly about Rs. 1-6 per maund.	1 0 0	The rates entered are the average rates realized by the cultivator who sells his produce. The Deputy Collector gives the following rates as those at which the same articles may be purchased at the *gunges* of the tract—

	Rs. A. P.
Paddy .	0 9 6
Wheat .	2 13 0
Linseed ...	2 13 0
Mustard	2 13 0
Til	2 2 0
Gúr	2 14 0
Bút	1 7 6
Musuri	1 7 6
Khesari	1 2 9
Pease	1 13 0
Arhar . ..	1 7 0

But I hardly think these figures can be taken without further enquiry as very accurately representing the relation between price paid to cultivators and price charged to wholesale buyers. A cow is said to average Rs. 12, a bull Rs 10. A female buffalo costs Rs. 60, a male Rs. 20. The price of a goat is put at 12 annas. The fish are all tank fish, being rohu, mirgal, katla, kalboush, tengra, and small chingris.

Labor 2.

District.	Wages per Diem.		Cart per day.	Camel per day.	Donkeys per score per day.	Boat per day.
	Skilled.	Unskilled.				
		Rs. A. P.	Rs. A. P.			
Barawan thana, zillah Beerbhoom	.....	0 2 0	0 12 0			

Stock 2.

District.	Cows and bullocks.	Horses.	Ponies.	Donkeys.	Sheep and goats.	Pigs.	Carts.	Ploughs.	Boats.
Barawan thana, zillah Beerbhoom ..	Cows 20,558	7	14	8	Sheep .. 6,363	125	45	6,313	.
	Bullocks 16,055*	.. .	... ..	...	Goats ... 3,182			.....	..
	36,613				9,545				
Female	Buffaloes 300	.....	.....	..	... ..	...	...	.. ...	...
Male ...	Ditto 63	....	....	.	.....	...	...	.....	..

* Includes bulls.

Rates of Rent and Produce.

District.	Average Rent per Acre for Land suited for					Average Produce of Land per Acre in lb. †						
	Rice.	Wheat.	Inferior grains.	Oil-seeds.	Fibres.	Rice.	Wheat.	Inferior food-grain.	Oil-seeds.	Fibres.	Sugar.	Vegetables, &c.
Thana Barawan	...*	...*	...*	...*	...*	2,778	418	Chauna ... 623	Maisna ... 308	Sunn 703	4,924	Onions ... 5,266
						1304		Musari ... 623	Mustard ... 220	.....		Garlic ... 3,166
						37		Matar ... 623	Til ... 703	.....		Vegetables ... 2,462
						122		Khesari ... 354	.....	.....		Lalitashakh ... 2,814
						2		Arhar ... 440	.....	.....		Mulberry ... 18,467
General average ...												

* Columns marked(*) cannot be filled up, as there are no rates according to crops grown but according to kind of land.

	Rs.	A.	P.
Sâli Awwal	10	15	6
„ Duim	6	13	0
„ Seim	4	14	6
Do Awwal	12	13	9
„ Duim	9	13	3
Jedângâ	3	6	6
Olân	10	9	6
Dihi tût	19	10	6
Mathal tût	13	9	9
Bâstu	28	11	9
Udbâstu	9	8	9

Garden and tanks.—No special rates for these. Mostly in udbâstu, do duim, and jedângâ.

† Vegetables not sold by weight, but an average weight assumed for the present calculation.

K.

Charitable Institutions.

Charitable Institutions in the Province of Beerbhoom

Class and Object of Institution	Number of institutions	Average number of persons daily aided	Number aided in year	Income: Paid by Government	Income: From endowments: In land.	Income: From endowments: In money	Income: Subscriptions and donations	Number of Institutions which afford Relief: In-door	Number of Institutions which afford Relief: Out-door	Number of Institutions which afford Relief: General	In what shape Relief is given
Government Institutions											There are no charitable institutions in this area, as noted in the return Only at the instance of one Kali Baboo of Panchthupi one alms house and one charitable dispensary have been started at his own house, and he bears the whole expenditure of the same
Dispensaries											
Poor-houses											
General											
For blind											
„ deaf											
„ lepers											
Supported by General Public											
For cure of sickness											
To relieve paupers											
For blind				Blank							
„ deaf											
Hindu											
For cure of sickness											
To relieve paupers											
„ Brahmins											
Mahomedan											
For cure of sickness											
To relieve paupers											
„ lepers											

Part IV.

Statistics of Instruction

A

Ecclesiastical

Return of Religious Institutions of various denominations in the Province of Beerbhoom in the year.

Profession	Number of churches or institutions	Number of ministers or priests	Number of persons attending worship	Income: Paid by Government	Income: In land	Income: In money	Income: From fees and offerings	Explanatory Remarks
Christians: Roman Catholics								There is no institution in this thana which imparts instructions in the religious doctrines
Christians: Church of England								
Christians: Church of Scotland								
Christians: Protestant Dissenters								
Christians: Greeks								
Christians: Armenians								
Christians: Unitarians								
Hindu								
Mahomedan: Soonee								
Mahomedan: Sheeah								
Seikh								
Budhist or Jain								
Total								

Deputy Collector's Estimates of Cost and Profit of Cultivation.

SALI AWWAL.

Produce per Beegha.			Expense of cultivation per beegha.		Remarks.
Articles.	Quantity of produce.	Amount of price.			
		Rs. A. P.	*Sowing.*	Rs. A. P.	
Dhan	4 bish ...	8 0 0	6 ploughs	1 2 0	If rains fall in abundance in time, peasants derive this profit, but if irrigation is required on several occasions the profit is less. *Kutcha* seer weighing (58-10) is prevalent in this thana, of which— 10 seers = 1 ari. 20 aris = 1 bish. 1 bish = 5 maunds. The quantity of produce is writen here by *kutcha* weights. The highest rate of rent of sâli awwal is Rs. 4¼ per beegha, but the lands of all the villages are not equal; consequently the rate of rent is respectively, Rs. 3, 3½, 4, and 4¼.
Straw	4 pons	1 8 0	Manure, 40 maunds	0 8 0	
			2 laborers for carrying manure	0 4 0	
		9 8 0	Dhan seeds, 15 seers	0 3 0	
			1 laborer for making borders (আল) ...	0 2 0	
			2 laborers for clearing grass by instrument (নিড়াম)	0 4 0	
			1 laborer for clearing grass by hand (গছামি)	0 2 0	
			2 laborers for watering lands...	0 4 0	
			2 ditto for reaping	0 4 0	
			2 ditto for conveyance	0 4 0	
			2 ditto for detaching paddy from the straw	0 4 0	
				3 9 0	
			Rental	4 4 0	
				7 13 0	
			Khesari.		These three kinds of crop are produced once in a year in this kind of land. The memorandum of the total price, expenditure, and profit in one beegah is shown in the following :—
Khesari	2 maunds... ..	1 8 0	Seeds 6 seers	0 2 3	
Chaff	2 jallies (জালি)	1 0 0	2 laborers for sowing, cutting, and detaching crops from the trees (মলাই)	0 4 0	
				0 6 3	

	Price. Rs. A.	Expenditure. Rs. A. P.	Profit. Rs. A. P.
Dhan	9 8	7 13 0	1 11 0
Khesari	2 8	0 6 3	2 1 9
Til	6 0	2 10 0	3 6 0
Total ...	18 0	10 13 3	7 2 9

				Til.	
				3 ploughs	0 9 0
				Manure, 40 maunds	0 8 0
				2 laborers for carrying manure	0 4 0
				Seeds, 1¼ seers	0 1 0
				6 laborers for watering two times	0 12 0
				1 laborer for reaping	0 2 0
				1 ditto for conveyance	0 2 0
				2 laborers for detatching crops from the trees (মলাই)	0 4 0
					2 10 0
				Planting.	
Dhan	4 bish ...	8 0 0		5 ploughs	0 15 0
Straw	8 pons ..	1 8 0		Manure, 40 maunds	0 8 0
				2 laborers for carrying manure	0 4 0
		9 8 0		Seeds, 10 seers...	0 2 0
				1 laborer for bordering (আল)	0 2 0
				2 laborers for clearing grass by instrument (নিড়ান)	0 4 0
				1 laborer for carrying plants	0 2 0
				1 ditto for planting	0 2 0
				2 laborers for watering the lands	0 4 0
				2 ditto for cutting	0 4 0
				2 ditto for conveyance	0 4 0
				2 ditto for detaching paddy from the straw	0 4 0
					3 7 0
				Rental	4 4 0
					7 11 0
Khesari (খেসারি)	2 maunds... ..	1 8 0		Cultivation cost	0 6 3
Chaff	2 jallies	1 0 0			
		2 8 0			
Til (তিল) ...	4 maunds... ..	6 0 0		Ditto	2 10 0

These three kinds of crop are produced once in a year in this kind of land. The memorandum of the total price, expenditure, and profit in one beegah is shown in the following :—

	Price.	Expenditure.	Profit.
	Rs. A.	Rs. A. P.	Rs. A. P.
Dhan	9 8	7 11 0	1 13 0
Khesari	2 8	0 6 3	2 1 9
Til	6 0	2 10 0	3 6 0
	18 0	10 11 3	7 4 9

SALI DOEM (সালি দোএম).

Produce per Beegha.			Expense of cultivation per beegha.		Remarks
Articles.	Quantity of produce.	Amount of price.			
		Rs A. P.		Rs. A. P.	
			Sowing.		
Dhan	3 bish ...	6 0 0	Cultivation cost.. ..	3 9 0	Rs. 3-9 for sowing is incurred in every sort of expenses as stated for cultivation of dhan in *sali awwal.* The highest rent of this land is Rs. 2½ per beegha, but all the lands of the villages are not equal, the rates being Rs. 2 and 2½ respectively per beegha The two kinds of crop grow once in a year. The following is a memorandum :—
Straw	7 pons ..	1 4 0	Rental ...	2 8 0	
		7 4 0		6 1 0	
Til	3 bish	4 8 0	Cultivation cost...	2 10 0	
			Planting.		
Dhan	3 bish	6 0 0	Cultivation cost	3 7 0	Rs. 5-15 for planting is incurred in every sort of expenses as stated for the cultivation of *dhan* in *sali awwal.* These two kinds of crop grow once in a year on the same land.
Straw	7 pons	1 4 0	Rental	2 8 0	
		7 4 0		5 15 0	
Til	3 bish	4 8 0	Cultivation cost	2 10 0	

Remarks (Sowing):

	Price. Rs. A. P.	Expenditure. Rs. A. P.	Profit. Rs. A. P.
Dhan ...	7 4 0	6 1 0	1 3 0
Til ...	4 8 0	2 10 0	1 14 0
	11 12 0	8 11 0	3 1 0

Remarks (Planting):

	Price. Rs. A. P.	Expenditure Rs. A. P.	Profit. Rs. A. P.
Dhan ..	7 4 0	5 15 0	1 5 0
Til	4 8 0	2 10 0	1 14 0
	11 12 0	8 9 0	3 3 0

SALI SOEM (সালি সিএম).

		Rs. A. P.		Rs A. P.	
Dhan ...	2 bish	4 0 0	Cultivation cost	3 7 0	In this sort of land dhan is almost produced by planting, the expense of cultivation is like those of *sali awwal* The rates of rent are Rs. 1½ and Rs. 1¾ respectively. The memorandum of the total price, expenditure, and profit in one beegha is shown in the following memorandum:—
Straw ...	6 pons ...	1 0 0	Rental	1 12 0	
		5 0 0		5 3 0	
Til ..	3 maunds	4 8 0	Cultivation cost	2 10 0	

	Price. Rs. A. P.	Expenditure. Rs. A P.	Profit. Rs. A. P.
Dhan ..	5 0 0	5 3 0	
Til	4 8 0	2 10 0	1 14 0
	9 8 0	7 13 0	1 14 0
Deduct over profit ...			0 3 0
			1 11 0

From this table it will be seen that the expenditure is over profit, but this is met from the income derived from the produce of til, which grows on it after the paddy is reaped.

DO AWWAL (দো আওল).

		Rs. A. P.		Rs. A. P.	
Dhan	4 bish	8 0 0	Cultivation cost .. .	3 7 0	The method of cultivation is the same as that of *sali awwal*, and the rates of rent are three kinds, Rs. 4, 4¼, and 4½ per beegha.
Straw	8 pons	1 8 0	Rental	4 8 0	

	Price. Rs. A. P.	Expenditurer Rs. A. P.	Profit. Rs. A. P
Dhan	9 8 0	7 1 50	1 9 0

DO AWWAL (দো আওল).—(*Continued.*)

Produce per Beegha.			Expense of cultivation per beegha.		Remarks.
Articles.	Quantity of produce.	Amount of price.			
		Rs. A. P.		Rs. A. P.	
Oats (বুট) ...	4 maunds... ...	4 0 0	3 ploughs	0 9 0	Price. Rs. A. P. 5 0 0 / Expenditure. Rs. A. P. 2 13 0 / Profit. Rs. A. P. 2 3 0
Chaff	2 jallies (জালি)	1 0 0	Manure, 40 maunds	0 8 0	
			2 laborers for carrying manure	0 4 0	
		5 0 0	Seeds, 10 seers	0 10 0	
			3 laborers for watering once	0 6 0	
			2 ditto for reaping the plants	0 4 0	
			2 ditto for detaching crops (মলাই) ...	0 4 0	
				2 13 0	
Til	4 maunds ...	6 0 0	Cultivation cost	2 10 4	The expenses are the same as that of *sali doem* (সালি দোএম). Price. Rs. A. P. 6 0 0 / Expenditure. Rs. A. P. 2 10 0 / Profit. Rs. A. P. 3 6 0
Musuri (মুসুরি)	4 maunds ...	4 0 0	3 ploughs	0 9 0	5 4 0 / 2 8 0 / 2 12 0
Chaff	2 jallies	1 4 0	Manure, 40 maunds	0 8 0	
			2 laborers for carrying manure	0 4 0	
			Seeds, 6 seers	0 5 0	
			3 laborers for watering once	0 6 0	
			2 ditto for reaping	0 4 0	
			2 ditto for detaching the grains from the plants (মলাই)	0 4 0	
				2 8 0	

					Price.	Expenditure.	Profit.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
Pease (মটর) ...	4 maunds ...	5 0 0	3 ploughs	0 9 0	5 8 0	3 3 0	2 5 0
Chaff ...	2 jallies	0 8 0	Manure, 40 maunds	0 8 0			
			2 laborers for carrying manure	0 4 0			
		5 8 0	Seeds, 20 seers	1 0 0			
			3 laborers for watering once	0 6 0			
			2 ditto for reaping... .	0 4 0			
			2 ditto for detaching the grain from the plants (মলাই) ..	0 4 0			
				3 3 0			
Linseed (মসিষা)	2 maunds ...	4 0 0	3 ploughs	0 9 0	4 8 0	3 3 0	1 5 0
Chaff ...	2 jallies	0 8 0	Manure, 40 maunds	0 8 0			
			2 laborers for carrying manure	0 4 0			
		4 8 0	Seeds, 10 seers	0 10 0			
			6 laborers for watering twice	0 12 0			
			2 ditto for reaping...	0 4 0			
			2 ditto for detaching grain from the plants	0 4 0			
				3 3 0			
Mustard (সরিসা)	1½ maunds ...	3 0 0	3 ploughs	0 9 0	4 4 0	2 11 0	1 9 0
			Manure, 40 maunds	0 8 0			
Mustard, dried plants.	ditto ...	0 12 0	2 laborers for carrying manure	0 4 0			
			Seeds, 1 seer	0 2 0			
Husk (আগড়া)	ditto ..	0 8 0	6 laborers for watering twice	0 12 0			
			2 ditto for reaping	0 4 0			
		4 4 0	2 ditto for detaching grain from the plants	0 4 0			
				2 11 0			
Khesari (খেসারি)	2 maunds ...	1 8 0	3 ploughs	0 9 0	2 8 0	2 1 3	0 6 9
			Manure, 40 maunds	0 8 0			
Chaff	2 jallies ...	1 0 0	2 laborers for carrying the manure	0 4 0			
			Seeds, 6 seers	0 2 3			
		2 9 0	3 laborers for watering once...	0 6 0			
			1 laborer for reaping	0 2 0			
			1 ditto for detaching grain from the plants	0 2 0			
				2 1 3			

DO AWWAL (দো আওল).—(*Continued.*)

Produce per Beegha.			Expense of cultivation per beegha.		Remarks.
Articles.	Quantity of produce.	Amount of price.			
		Rs. A. P.		Rs. A. P.	
Wheat	2½ maunds ...	5 0 0	3 ploughs	0 9 0	Price. Rs. A. P. 6 0 0 — Expenditure. Rs. A. P. 3 3 0 — Profit. Rs. A. P. 2 13 0
Chaff	2 jallies ...	1 0 0	Manure, 40 maunds	0 8 0	
			2 laborers for carrying manure	0 4 0	
		6 0 0	Seeds, 10 seers	0 8 0	
			9 laborers for watering three times ...	1 2 0	
			1 laborer for reaping	0 2 0	
			1 ditto for detaching grain from the plants	0 2 0	
				3 3 0	
Sugarcane Molasses (গুড়)	32 maunds ...	64 0 0	7 ploughs	1 5 0	This is the cost for irrigating sugarcane land if the water is near, and if the water is at a distance the expenditure must be more than this. If the seedlings are not purchased, only two laborers are required for (jooano) planting and (haprano) transplanting them at the proper season, and if the seedlings are purchased, the cost must be Rs. 5 for the purchase of 4 kahans of them for the plantation on one beegha. Price. Rs. A. P. 64 0 0 — Expenditure. Rs. A. P. 33 5 0 — Profit. Rs. A. P. 3 11 0
			Manure, 200 maunds	2 8 0	
			10 laborers for carrying manure	1 4 0	
			1 laborer for *jooano*, *i.e.*, planting the tips of sugarcane at the bank side of pond	0 2 0	
			1 laborer for *haprano* (হাপুরান)	0 2 0	
			6 laborers for planting the tips	0 12 0	
			15 ditto for watering five times	1 14 0	
			5 ditto for first spading	0 10 0	
			4 ditto for second time	0 8 0	
			3 ditto for third time	0 6 0	
			3 ditto for smoothing and clearing the grass by spade (চাচনি)	0 6 0	
			21 laborers for twisting the canes seven times (বন্দনি)	2 10 0	

			3 laborers for (chalani) giving earth at the root of the plants (চালানি) ..	0 6 0	
			Thrashing the canes for eight days at Rs 2 each day (মজাই)	16 0 0	
				28 13 0	
			Rental	4 8 0	
				33 5 0	

DO DOEM (দো দোএম).

		Rs A P		Rs A P	Price Rs A P.	Expenditure Rs A P	Profit Rs A P
Onion	30 maunds	37 8 0	7 ploughs	1 5 0			
			Manure, 40 maunds	0 8 0	37 8 0	21 5 0	16 3 0
			Ditto for carrying	0 4 0			
			Seeds 1½ maunds	3 12 0			
			5 laborers for sowing	0 10 0			
			90 ditto for spading nine times ..	11 4 0			
			19 ditto for watering the lands nine times .	2 6 0	At the month of Kartik one person is required more in order to carry the water in every direction		
			10 laborers for rooting out from the ground (উঠান মজুর) . .	1 4 0			
				21 5 0			
Garlic .. .	18 maunds	36 0 0	Cultivation cost	17 9 0	This is the expenditure if garlics are sown on separate soil assigned for the purpose, but generally they are sown along with onions on the very land, the produce is partly consumed and partly sold in the market This is not exported to other countries as the produce is very little		
			Seeds, 30 seers	2 13 0			
				20 6 0			
					Price Rs A P.	Expenditure. Rs A P	Profit Rs A P
					36 0 0	20 6 0	15 10 0

JHOANGA—*High lands.*

Produce per Beegha: Articles	Quantity of produce	Amount or price	Expense of cultivation per beegha		Remarks
		Rs A. P		Rs A P	
Arhar (অরহর)	3½ maunds	3 8 0	3 ploughs	0 9 0	The tree grows four hands by height and one finger by thickness. The name of this crop is *chytal arhar* the grains of which are little larger than those of *maghi* ones, and have reddish spots on them
Arhar dried plants	10 bundles	1 4 0	Manure, 40 maunds	0 8 0	
Chaff	2 jallies	0 12 0	2 laborers for carrying manure	0 4 0	
			Seeds, 10 seers	0 8 0	
		5 8 0	1 laborer for clearing grass	0 2 0	
			3 laborers for watering	0 6 0	
			1 laborer for cutting	0 2 0	
			1 ditto for conveyance	0 2 0	
			1 ditto for detaching grain from the trees and winnowing	0 2 0	
				2 11 0	
			Rental	1 4 0	
				3 15 0	
					Price Rs A P: 5 8 0; Expenditure Rs A P: 3 15 0; Profit Rs A P: 1 9 0
Hemp	4 maunds	8 0 0	3 ploughs ...	0 9 0	Hemp is not cultivated The cultivators, to meet their own demand at some places cultivate it on 10 or 12 cottahs It is also seen now and then that one or two seers only are sold It is not exported, nor is it a commodity for trade in this part of the country
Hemp reeds	2 bundles	0 8 0	Manure, 40 maunds	0 8 0	
			Ditto for carrying	0 4 0	
		8 8 0	Seeds, 10 seers ...	1 12 0	
			2 laborers for cutting	0 4 0	
			2 ditto for washing and beating the plants in order to produce the hemp	0 4 0	
				3 9 0	
			Rental ..	1 4 0	
				4 13 0	
					Price Rs A P: 8 8 0; Expenditure Rs A P: 4 13 0; Profit Rs A P: 3 11 0

Brinjal	5 kahan	17 0 0	12 ploughs	2 4 0	This is very scantly produced. Only few chásás cultivate and sell them at the nearest market and are not exported.		
			Manure. 40 maunds	0 8 0			
			2 laborers for conveying the manure ...	0 4 0			
			2 ditto for planting and making (ভিলি) bhili	0 4 0	Price. Rs. A. P.	Expenditure. Rs A. P.	Profit. Rs. A. P.
			8 laborers for two times spading	1 0 0	17 0 0	10 2 0	6 14 0
			36 ditto for watering twelve times ...	4 8 0			
			Seeds (1 pooa)	0 2 0			
				8 14 0			
			Rental ...	1 4 0			
				10 2 0			

.OLAN—*The land nearest the banks of river.*

		Rs. A. P.		Rs. A. P.			
Khero	2 kahan	12 0 0	3 ploughs	0 9 0	The rental of the land on which it is produced varies at the rate of Rs. 3, 3½, and 4, respectively.		
			Manure, 40 maunds	0 8 0			
			2 laborers for carrying manure	0 4 0			
			Seeds, ½ seer	0 2 0			
			1 laborer for sowing the seeds, &c. (বাবা দেওা)	0 2 0	Price. Rs. A. P.	Expenditure. Rs. A. P.	Profit. Rs. A. P.
			30 laborers for watering, always	3 12 0	12 0 0	9 5 0	2 11 0
				5 5 0			
			Rental ...	4 0 0			
				9 5 0			
Cucumber (কাকুড়)	2 kahan	12 0 0	Ditto ditto ...	.....	12 0 0	9 5 0	2 11 0
Melon (তরবুজ) ..	12 pones ...	12 0 0	Ditto ditto ...	.....	12 0 0	9 5 0	2 11 0
Oochai (উচ্ছে) ...	14 maunds ..	14 0 0	Cultivation expenses together with rental ..	9 5 0	14 0 0	9 5 0	4 11 0
Lawo	10 pones ...	13 0 0	Ditto	9 5 0	13 0 0	9 5 0	3 11 0
Dingla	5 pones ...	12 8 0	Ditto	9 5 0	12 0 0	9 5 0	3 3 0

DIHI

Produce per Beegha			Expense of cultivation per beegha.			Remarks
Articles.	Quantity of produce	Price				
		Rs A. P	*Dihi* First year's planting		Rs A. P	
Mulberry ...	80 bundles	80 0 0	Ploughs ..		0 15 0	The average price, expenditure, and profit, of the mulberry plantation of one year is equal to the half of the sum of 1st and 2nd year's price, expenditure, and profit The following is the memorandum —
		28 7 0	20 laborers for (hoolan) spading the land .		2 8 0	
			Manure, 120 maunds		1 8 0	
		51 9 0	Ditto for carrying . .		0 12 0	
			Moora seeds (i e, the branches of other mulberry trees) 16 bundles		2 0 0	
			10 laborers for planting moora seeds	1 4		
			6 ditto for (harini) giving water by earth plates ..	0 12		
					2 0 0	
			18 laborers for watering the land six times		2 4 0	
			6 ditto for clearing grass three times .		0 12 0	
			56 laborers giving earth to the soil from another place		7 0 0	It is to be stated that mulberry is not so profitable in the first year as during the subsequent period, because the expenditure of planting is more than that of the second year, as shown in the expense column If once to be planted, the plants remain for the period of five or six years, and therefore expense and profit of the third and subsequent years are equal to that of second year's cultivation
			6 laborers turning the earth of the soil -		0 12 0	
					20 7 0	
			Rental .		8 0 0	
					28 7 0	

	Price Rs	Expenditure Rs A P	Profit Rs A P
1st year's	80	28 7 0	51 9 0
2nd „	80	17 13 0	62 3 0
(Divide by 2)	160	46 4 0	113 12 0
	80	23 2 0	56 14 0

Therefore the price, expenditure, and profit is equal to Rs 80, Rs 23 2, and Rs 56-14 of one year

				Second year's cultivation.
Ditto ..	80 bundles ..	80 0 0		3 ploughs 0 9 0
		17 13 0		Manure, 120 maunds 1 8 0
				6 laborers for conveying manure 0 12 0
		62 3 0		4 ditto for clearing grass .. . 0 8 0
				7 ditto for spading 0 14 0
				4 ditto for cutting the branches 0 8 0
				21 ditto for watering seven times .. 2 10 0
				20 ditto for giving earth to the soil 2 8 0
				9 13 0
				Rental .. 8 0 0
				17 13 0
				Mathal Tut.
				First time of cultivation.
Ditto ...	60 bundles ...	60 0 0		Cultivation cost 20 7 0
				Rental 6 0 0
				26 7 0
				Second time of cultivation.
Ditto ...	60 bundles ...	60 0 0		Cultivation cost 9 13 0
				Rental 6 0 0
				15 13 0
Nalta vegetable ..	16 maunds ..	10 0 0		10 laborers for spading 1 4 0
				Seeds, 1½ seers 0 3 0
				10 larborers for watering the lands always .. 1 4 0
				2 11 0
				Rental ... 3 0 0
				5 11 0

The remarks of this kind of mulberry plantation is the same with that of dihi tut, and the memorandum as follows :—

	Price. Rs.	Expenditure. Rs. A. P.	Profit. Rs. A. P.
1st year's ...	60	26 7 0	33 9 0
2nd ,, ...	60	15 13 0	44 3 0
(Divide by 2) ...	120	42 4 0	77 12 0

The average price, expenditure, and profit, is equal to Rs. 60, Rs. 21-2, Rs. 38-14 of one year.

If the silkworm is cultivated at a very scale, the tut is more profitable.

No. 102A, dated Fort William, the 25th February 1875.

Memo by—J. GEOGHEGAN, ESQ., Officiating Secretary to the Board of Revenue, Lower Provinces.

SUBMITTED, in original, to the Secretary to the Government of Bengal in the Statistical Department.

Hon'ble V. H. Schalch, C.S.I.

2. If the report is printed, the Member in Charge will be glad to be furnished with 20 copies.

No. 1027, dated Burdwan, the 12th February 1875.

From—C. T. BUCKLAND, ESQ., Commissioner of the Burdwan Division,

To—The Secretary to the Board of Revenue, Lower Provinces.

WITH reference to the orders of the Board of Revenue, No. 455A., dated 26th November 1874, I have the honor to submit copy of letter No. 1184, dated 2nd February, from the Collector of Beerbhoom, with the original report submitted by him on the result of the statistical inquiries made in that district by the Deputy Collector Baboo Janoki Nath Mozoomdar, and to request that the report may be printed and three printed copies of it sent to me for comment.

No 1184, dated Camp Labpore, the 2nd February 1875

From—R. D. HIME, ESQ., Officiating Collector of Beerbhoom,

To—The Commissioner of the Burdwan Division.

I HAVE the honor to submit the report on the statistical inquiries made in the district of Beerbhoom by Deputy Collector Baboo Janoki Nath Mozoomdar.

2. The multiplicity of my engagements and the want of assistance have caused great delay in the preparation of this report, which is now submitted condensed from the mass of raw material supplied by the Deputy Collector; no light task, it may be admitted, considering that the original report is at least four times the length of the abstract, more than half of it consisting of verbose repetitions of matter included in the report on thana Burrwa, submitted by my predecessor, which had to be eliminated by tedious processes of comparison. A considerable portion of the report consisted of fanciful descriptions of the mental and physical characteristics of the different castes, which I have also eliminated as being rather curious than interesting or instructive

3. The tables annexed pretend to much minuteness of detail; but as I have had no time to test them sufficiently, this report being repeatedly called for by the Board, and my time being much occupied with more urgent work, I am unable to offer any opinion on their accuracy or value. The Deputy Collector's information on the subject of education is palpably incorrect, but it would not be fair to draw any general conclusion from this inaccuracy.

4. It will be observed from Table Part I, E 2, Fiscal, that the tract surveyed by the Deputy Collector is exceedingly well cultivated and enjoys large facilities of irrigation. This irrigation being, however, principally drawn from tanks, is liable to fail when most needed.

5. The Deputy Collector's description of the habits and customs of the sect of Boistubs is interesting, shewing that an organised effort is being made to throw off the trammels of caste.

6. I doubt the value of details regarding the mode of cultivating different kinds of crops unaccompanied by suggestions for improvement, these particulars being, of course, known to those interested in the matter; they may, however, serve for comparison with the modes followed in other districts.

7. In conclusion, I beg to suggest that if these inquiries are to be resumed, the work may be entrusted to some officer capable of himself reporting their results in a readable form, as the revision and condensation of the undigested materials supplied by Baboo Janoki Nath Mozoomdar is a work for which I have no leisure, and takes up much of the time of my clerks in translating and transcribing. More discrimination in selecting subjects, and care in avoiding repetition, would save the officer engaged in prosecuting these inquiries much useless expenditure of time and labour, and enable the Collector to devote the time misspent in endeavouring to condense and digest in the more useful work of comparing the results with those of similar inquiries in other districts, testing the accuracy of the information collected, and supplying commentaries based on his own experience and that of others.

ABSTRACT

OF THE

STATISTICAL REPORT OF THE DISTRICT OF BEERBHOOM.

Burrwa.
Mouresher.
Sacoolipore.

THE investigations in the thanas marginally noted were completed on the 25th of December 1873, and the report on thana Burrwa submitted. The proximity of situation causes a general resemblance in characteristics and common productions.

The zemindars of this quarter have no detailed records of the areas of their zemindaries; the papers in their possession only show the rent assessed, which gives no help in the classification of lands and crops.

Agreeably to paragraph 5 of the Board's letter No. 43A., dated the 21st January 1873, an actual measurement of the entire area of the land has been made, and the measurement for each thana is given below under the heading "particulars of land."

Boundaries of thana Burrwa: bounded on the east in part by thana Ketugram, zilla Burdwan, but chiefly by thana Bharatpore, zilla Moorshedabad; on the north by thana Khorgram in Moorshedabad; on the west chiefly by thana Mouresher, and in part by thana Labpore in Beerbhoom; on the south, for the greater part, by thana Labpore, and in part by Sacoolipore in Beerbhoom.

Boundaries of thana Mouresher: bounded on the east by thana Burrwa in Beerbhoom, in part by thana Khorgram in Moorshedabad; on the north by thana Ramporehaut in zilla Moorshedabad, and in part by district Sonthalia; on the west by district Sonthalia, and in part by thana Soory in Beerbhoom; and on the south by thanas Soory and Labpore in Beerbhoom.

Thana Sacoolipore is bounded on the east by the old Badshahi road, on the east of which lies thana Ketugram in Burdwan; on the north by thana Labpore, and in part by thana Burrwa in Beerbhoom; on the west by thana Kusba in Beerbhoom; and on the south by the river Adjai, on the south of which lies thana Monglecote in Burdwan

Square miles (area).

Thana Burrwa	104
Thana Mouresher	217½
Thana Sacoolipore	136½
Total ...	458

Classification of land.

1. Metial.
2. Dorash.
3. Bali.

These descriptions of land are found in each of the thanas; their distinctive characteristics have been given in the report on thana Burrwa.

Classification of the Land according to Cultivation.

Thana Burrwa		Thana Mouresher.			Thana Sacoolipore.					
Sali	1									
Do	2									
Jedanga	3									
Alan	4									
Dehi	5				+	+	+	+	+	+
Metial	6	Bhuta	...	7	+	=	=	=	=	=
+ „ +	7				+	—	—	—	—	—

There are seven classes of culturable lands, and the above table shows which classes exist in each of the thanas; the non-existence of any class is indicated by a cross. The characteristics of these lands are given in the report on thana Burrwa.

Cotton and indigo grow in *do* lands; no indigo is grown in thana Burrwa. It is only found in divisions Mouresher and Sacoolipore.

But (chick pea).	Musuri.
Mutar (peas).	Khesari.
Shurshi (mustard).	Rai (mustard).
Mushina (flax).	Gom (wheat).
Job (barley).	

The other "rubbee" crops grow in all three divisions.

The crops noted in the margin should be put in in Kartik. The other crops which can be grown on these lands will be described hereafter.

But (Ciur aristmum).

When the grain begins to form, the plants must be irrigated once. The grain begins to ripen from the end of Falgoon, and is mature by Chyet. The crop is removed and thrashed in the same month. Thrashing is done by bullocks. In the middle of the thrashing-floor (khamar) a pole made of bamboos or wood of not more than four cubits length is fixed: this pole is called "meygach." A rope with collars at intervals of 1½ cubit for seven bullocks is tied round this pole at a height of 2 or 2½ cubits. This rope is called "deoani." The rice is strewn around this pole on the ground, and the bullocks are made to move round the pole. This is called "maran." The bullocks must be kept moving till the rice is completely trodden out.

Musuri—Mussoor (Ervum hirsutum).

When the grain is forming, the plants must be irrigated once; the grain begins to ripen in Falgoon, and is mature before the month expires. The crop is then taken up by the roots and thrashed by "maran," as described above.

Peas.

Peas should be irrigated when the fruit is forming in the pod, and cultivated in the same way as musuri.

Khesari (Lathyrus sativus).

Similar to musuri in every respect. When it is sown broadcast in "sali" land, no irrigation is necessary, as those lands are still moist at the time of the formation of the fruit.

Shurshi—Mustard (Sinapis dichotoma).

When the plant begins to flower, requires one irrigation, and another at the end of Poush, when the seed begins to form In the latter portion of Magh the crop is ripe, and the plants are taken up by the roots and trodden out as described above.

*Rai * (Sinapis glauca).*

Requires one irrigation in the end of Agrahayan, when it flowers, and another early in Magh, when the seed begins to form. The crop is mature by the end of Magh or first portion of Falgoon, when it is removed and trodden out. Rai takes more time to ripen than mustard.

* This is a coarser kind of mustard, with white seed.—EDITOR

Mushina (Linum resicatissimum).

Requires to be irrigated in the end of Agrahayan, when it flowers, and a second time in the end of Magh, when the seed begins to form The crop is ripe by the end of Falgoon or beginning of Chyet, when it is reaped and thrashed. This crop comes to maturity somewhat late.

Wheat.

In Poush and in Magh, when the flower is within the stalk, the crop should be irrigated, and again when the ears appear in Falgoon. The grain begins to ripen in the end of Falgoon, and is mature by the 20th of Chyet; it is then reaped and thrashed.

Barley.

Grown in the same way as wheat.

Krishno Til (Tesasmum Orientale).

When the abovementioned crops are off the ground, manure the lands with 40 maunds of manure per beegha, and sow as in "sali" land. After the removal of the til, the rotation of crops brings rice again The "rubbee" crops which have been enumerated above are not as a rule raised separately. If it suit the cultivators, they sow various kinds of crops in the same field; and when any one kind is ripe, remove it, leaving the others.

Cotton.

The cultivation of cotton is gradually declining; formerly it was extensively cultivated in Dari Mouresher pergunnah and in Sacoolipore; but as agriculture is declining, this crop has suffered materially.

C.

Thana Burrwa	Beegha	9	1	10
	Acre	3	0	0
Thana Mouresher	Beegha	430	0	0
	Acre	142	0	24
Thana Sacoolipore	Beegha	632	16	17
	Acre	209	0	33
Total	Beegha	1,071	18	17
	Acre	354	1	17

In thana Burrwa a very small quantity is grown. Cotton grows in *do* lands, but sown along with other "rubbee" crops; the lands are not set apart, but are included with the "rubbee suna" lands. Only "rubbee" crops of low stature, which do not creep, such as mustard, rai, mosina, wheat, and barley, are sown with cotton. Cotton seed is not sown broadcast, but put in holes dug for the purpose.

The same land will not grow cotton every year; the crops which are sown along with it are taken off the ground as each ripens, but the cotton remains on the land till early in of Asarh.

Cotton is no hindrance to the growth of rice on the same land. As soon as it is off, the rice is put in.

After the "Kartik-sali" rice is cut, the land should be well irrigated; and in Kartik eighty maunds of manure given to each beegha, and for six consecutive days the land ploughed and harrowed six times; then the holes should be dug 2 or 2½ cubits apart, and the seed which has germinated put in; the remainder of the land should be sown broadcast with other crops. Three seers of cotton seed are required per beegha. The seed should be steeped in water for a day, and then pressed in straw; it germinates in two days. Three or four seeds should be put in each hole and earthed up. The process of sowing is finished within Kartik.

When the plants come up they should be irrigated once in that month, and the roots earthed up.

A similar process should be gone through once in Agrahayan; in Poush, Magh, and Falgoon, twice; in Chyet thrice; and in Baisakh once.

In Baisakh the plants begin to produce; from Jeth to the first portion of Asarh the crop matures; but is spoiled as soon as the rainy season sets in, when the plants must be taken up by the roots and the land prepared for the rice crop.

Expense and Profit of Cotton Cultivation.

	Rs.	A.	P.
Cost of cultivation	10	6	6
Gross profit.			
5 Maunds "kachi" cotton	12	8	0
6 "Bojha" of "banga" or cotton stalks	0	8	0
Total ...	13	0	0

No separate rent is paid; the rent is included in the rents of rice land, and is therefore not entered in the account; nor has the profit derived from the proceeds of other crops raised along with it been shewn. Some labour is necessary in gathering the seed pods; but as this is done by the women and children of the cultivator's family, no expense is incurred on that head. Four seers would give one seer of cleaned cotton. The cleaned cotton is obtained by rending the pods by hand, and then pressing them by means of a "charki" (cotton-pressing wheel). It sells at three seers per rupee.

Indigo

Is not cultivated in Burrwa, but is in Mouresher and Sacoolipore. No separate lands are allotted for its cultivation; it is cultivated along with other crops. There has been a general decline in the cultivation of indigo, and the factories are not in full work.

Area of Land on which Indigo is Cultivated.

Division Burrwa ...	Beegha	...	...	... .
	Acre	...	...	... . .
Division Mouresher ...	Beegha	...	...	... 400 0 0
	Acre	..	...	.. 132 0 38
Division Sacoolipore	Beegha	...	...	... 2,000 0 0
	Acre	...	...	... 661 0 32
Total	Beegha	...	...	.. 2,400 0 0
	Acre	...	...	... 793 1 30

In other districts indigo is cultivated both in "nij-jote" and through ryots, but in this district there are no "nij-jote" lands; all the lands are cultivated by ryots. The indigo cultivation of this district is called "prajaiabad," *i.e.*, cultivated by ryots.

Indigo is cultivated by ryots either on advances from the factories or without advances, and the terms differ as follows:—

Cultivation on Advances.

The ryots receive advance from the factory on promise of growing indigo, and execute a "sata" agreement.* They grow indigo on their own lands, and repay the advances from the price of the indigo which they supply to the factory; the other crops raised along with the indigo remain as the ryot's profit; the indigo is cut by the ryots, but the cost of carriage is borne by the factory. Indigo sells at eight bundles, 3½ cubits in circumference each, per rupee. If the ryot carries the plants to the factory, he gets the cost of carriage.

* Contract on advance.—EDITOR.

Cultivation of Indigo without Advances.

Some of the ryots cultivate indigo on their own account and sell it to the factories. They sell at the rate of five bundles per rupee.

They receive three seers ("paki") of seed per beegha; no charge is made on account of the seed. The indigo is made over by both classes of cultivators to the factory from which the seed is received.

There are two seasons for sowing indigo.

Chitan.

When the water on the lands begins to subside, the seed is sown broadcast; other "rubbee" crops are sown along with it. No expenses on account of ploughing, manure, and irrigation are incurred; only the lands must be weeded when grass grows up among the plants; this is called "halimara." "Chitan" extends from Assin to Kartik.

Sowing in Kartik.

As soon as the "Kartik-sali" rice is taken off the land, put in forty maunds of manure and plough twice, and on the day the seed is to be sown plough once more and sow the seed broadcast; other "rubbee" can be sown along with it. Harrow the lands once. When the plants come up, irrigate once in Agrahayan and once in Chyet. "Keshi" grass does not grow on such land.

Cultivation by Sowing in Falgoon.

After the reaping of the "rubbee" crops in Falgoon, put in forty maunds of manure and plough the land twice; plough once more on

the day of sowing, sow the seed broadcast, and harrow the land once; only "til" can be sown along with it; no other "rubbee" crop can be raised This season of sowing extends from Falgoon to Baisakh It is better to sow in Falgoon, as the smaller plants are destroyed by the rains, whereas those of sufficient growth are benefited. By sowing in Falgoon, you can grow "til" along with the indigo.

When the plants come up, they should be once irrigated in Baisakh and once in Chyet. "Keshi" grass does not grow on this land.

Rice cannot be grown on indigo land the same year, because the removal of the indigo begins in Asarh and continues up to the first part of Bhadro, when the season for sowing rice is over.

The seed should be that which ripened in the Poush preceding the season of cultivation, *i.e*, the seed sown in Kartik must have been ripe by the preceding Poush; such seed is also sown in Falgoon, and serves for the next cultivation. The seed cannot be used for the following Falgoon, as it would not germinate.

If there be a good crop, it may be estimated at sixty bundles per beegha; there is a difference in the profit of the ryots who take advances and of those who do not.

Ryots taking Advances, per Beegha.

Profit of the ryot = Rs. 7-8, price of 60 bundles.

Ryots who do not take Advances.

Profit of ryot = Rs. 12, price of 60 bundles

Indigo is not properly cultivated now, and the quantity obtained from even first class "do" amounts at most to 40 bundles, and 30 bundles from second class "do" lands.

When the leaves break under the pressure of the hand, they are considered to be mature, and the plants fit to cut

Kachoo (*Arum colocasia*).

This vegetable is sometimes grown on second class "do" lands after the sugarcane is removed It is grown in thanas Mouresher and Sacoolipore, but is not one of the principal crops.

In Chyet, when the sugarcane is off the land, manure the land with 80 maunds of manure, and plough it eight times in eight days up to Jeth; on the last day of ploughing in Jeth the seed should be separately put in at distances of one foot and earthed up When the plants come up in Asarh they should be irrigated and dug round In Asarh weeding with the "kodali" is required. At the end of this month the plants require to be banked up between the rows.

In Srabon and Bhadro the plants should be banked up by threes, *i.e.*, as the plants grow, the roots require to be earthed up "Kachoo" is taken off the land in Agrahayan

After this, some "rubbee" crops can be raised, but as "musuri" grows best, the cultivation of this is generally resorted to.

One beegha of land requires 1½ maund of seed, and the yield is 40 maunds of "kachoo." The cost of cultivation, including rent, Rs. 3-8, amounts to Rs. 14, and the gross profit to Rs. 25; the net profit is therefore Rs. 11.

Betel (Piper betel).

The people of this country use betel after every meal, made into "khilis," with lime, nut, catechu, and other spices.

Betel is said to heal sores of the mouth, to remove its bad smell and to have digestive and satiative qualities.

Betel is not cultivated in thanas Burrwa and Sacoolipore; it is only found in thana Mouresher. Betel cultivation is found in the following villages:—

Name of village.	Number of boraj or betel plantations.	Area.			
		Beeghas.	Cottahs.	Chittacks.	
Nandihat	2	3	7	8	REMARKS.—Betel plantations are called "boraj;" several persons jointly grow one "boraj."
Dubkhi	1	1	10	0	
Mollorpore	1	3	5	0	
Belaspore	1	1	7	8	
Bundara	1	0	15	2	

The "boraj" is made on "jedanga" lands, which are assessed at high rates; the rate of Rs. 40 per beegha prevails here. The entire quantity of land covered by these plantations is not assessed; only the portions on which the plants are, the intervening ridges being excluded, so that a beegha of such land comprises 40 instead of 20 cottahs.

The plant is cultivated by the caste called "Barui." The sun's rays are not allowed to enter the plantations, which are covered all around and above. "Boraj" once prepared will last for generations; it is only damaged by storms and hail.

Cultivation of Betel.

In the beginning of Magh the land must be levelled with a spade; to effect this you must water the land.

Then, in the beginning of Falgoon, comes the fixing of "rolas" (posts) of 4½ cubits high at intervals of two cubits all round the piece of prepared ground; ridges are made at intervals of 3½ cubits, and on these ridges bamboo posts of 3½ cubits high are fixed. Next the compound must be thoroughly fenced by "shor" (*Saccharam sara*) tattees.

The upper part of the "boraj" must be covered also, "rali" bamboos being placed across horizontally and tied firmly on the vertical posts fixed on the ridges. "Petel" (a kind of "shor") is tied to these bamboos with straw.

Next comes the ridging. On either side of the posts fixed within the "boraj" raise the earth to the height of one cubit.

The betel plants are put in from the latter part of Chyet to Jeth.

The creepers to be planted are cut from the plants of the previous Asarh, and should be 3½ to 4 cubits long. They should be planted on either side of the posts on the ridges; there should be four rows of these plants on each side.

Stretch the plants on trenches made on the ridges, and, excepting portions where there are knots and at the top, cover the whole with earth. The extremity where the plant has been cut from the parent-stem must be turned round to the length of ½ cubit and covered with earth, otherwise the plant would wither; place the top of the second plant at the place where the first plant has been turned round.

The plants require to be watered every day, morning and evening, for a month. Immediately after putting in, the plants must be covered with "petel" or "shor" leaves, and water poured on these leaves. The plants must remain thus covered for ten or twelve days. After this, the plants should be kept covered during the day and remain uncovered during the night. In the month of Asarh "shor" sticks should be fixed in an inclined position for the plants to creep on. Where the plants are 1½ cubit in length, they do not require to be covered any longer, and the "shor" sticks should be fixed. In this and the following months powder of mustard oil-cake should be put at the roots of the plants.

In Bhadro three rows of "shor" sticks should be placed in each ridge for the plants to creep on; these sticks should be perpendicular to the roof, which they must touch. Of these three rows, one should be along the posts and the other two on either side of the ridge, and the creepers should be tied to these sticks with "ulu khor," a kind of straw.

This tying is repeated in Assin and Kartik. From Agrahayan to Chyet irrigation is required on every third day. The selling of leaves commences from Agrahayan

When the plants are tied, the thickest ones should be stretched out and covered with earth. The plants should not be allowed to reach above the shed. When the plants reach the roof they should be brought down, the lower portion covered with earth, and the top tied to the stick. This process must be frequently repeated. The first cultivation ends here.

Cultivation during the Second Year.

In Baisakh and Jeth water the plants once every morning, and from Kartik to Chyet water at the same hour every third day. In Asarh, Bhadro, and Kartik, 120 maunds of oil-cake, at the rate of forty maunds per month, should be given. In Chyet and Baisakh the old "shor" sticks should be replaced by new ones. In order to prevent the plants stretching above the shed, tie the tops to the sticks and cover the other portions of the plants lying on the ridge with earth; the knots will germinate and grow into new plants. Mud ("punka") should also be put on the ridges. When the new plants shoot, the old "shor" sticks should be placed for them to creep on.

In Asarh and Srabon tie the plants once, and in Bhadro and Assin once, to the "shor" sticks.

The cost of cultivation of betel is given below. There are two kinds of betel—"chotali," which grows generally here, the leaves of which are large, bright green, of faint odour, and soft; and "sachi,"

which is rare, has smaller deep-green leaves, is of peculiar odour, and hard. There is no distinction in the mode of cultivation :—

Cultivation.

PRODUCE.			EXPENSE INCURRED IN THE FIRST YEAR OF CULTIVATION.		EXPENSES OF EACH OF THE SUBSEQUENT YEARS	
Name of the crop.	Outturn.	Price.	Items.	Price.	Items.	Cost.
		Rs As. P.		Rs. As. P.		Rs. As. P.
During the 1st year.			100 coolies for watering the land	12 8 0	Wages of 5 laborers at Rs 3-12 each per mensem	225 0 0
Betel ..	500 kahans ..	500 0 0	50 coolies for levelling the land	6 4 0	120 maunds of oil-cake	90 0 0
Deduct expense	.....	378 6 0	80 for digging the land	10 0 0	"Shor," petel, string, bamboo, &c.	50 0 0
Profit ...	.....	121 10 0	4 pons of "rah" bamboo	15 0 0	Cost of one meal for each of the above laborers	100 8 0
During each of the subsequent years.			20 coolies for fixing the posts	2 8 0	Rent ..	21 0 0
Betel ..	120 kahans	1,200 0 0	20 bundles of "shor" for fencing	5 0 0	Total ..	486 8 0
Deduct expense	.. ..	486 8 0	10 pons of bamboo lath	5 0 0		
Profit	... .	713 8 0	1½ maund of string ...	2 0 0		
			25 coolies	3 2 0		
			20 bundles of "petel"	5 0 0		
			20 " of bamboo sticks ...	2 0 0		
			2 bundles of "shor"	0 8 0		
			5 seers of string to tie the sticks with	0 8 0		
			Straw ..	0 4 0		
			80 coolies	10 0 0		
			40 coolies for raising the ridges	5 0 0		
			100 coolies for bringing and planting creepers	12 8 0		
			8 bundles of leaves to cover the plants with	1 0 0		
			150 coolies for watering the plants ...	18 12 0		
			60 coolies for covering the plants ...	7 8 0		
			60 maunds of oil-cake	45 0 0		
			8 bundles of "shor" sticks for the plants to creep on	2 0 0		
			40 coolies for fixing the "shor" sticks	5 0 0		
			160 coolies for tying the plants	20 0 0		
			160 coolies for watering from Agrahayan to Chyet	20 0 0		
			Wages of "ticca" coolies	141 0 0		
			Rent	21 0 0		
			Total	378 6 0		

Mula—Radish (Raphanus saturis)

Is a kind of root grown on "jedanga" land, used as a vegetable in curries; it is also eaten uncooked.

It is not grown in Burrwa, but is found in Mouresher and Sacoolipore.

Cultivation of Mula.

From Baisakh to Bhadro plough the land eight times each month. In Assin put in forty maunds of manure and plough the land twice: once more on the morning of the day of sowing; then sow one seer of seed broadcast and harrow in. When the plants are up in the latter part of Assin, dig the lands.

In Kartik irrigate and dig the land twice, *i.e.*, once in the beginning and once at the end of the month.

Radish sells well in Agrahayan and Poush. The Hindus do not eat radish in Magh, consequently its sale declines during this month. In Magh the roots grow hard. They remain in the ground till the end of Magh. The ryots cultivate radish in "jedanga" lands appertaining to their holdings, hence there is no distinct rate of rent. When the radish is taken off the land it is prepared for "arahar," "sun," and "Bhadoi kalai."

Gross profit.

	Rs.	A.	P.
15 Kahans of mula	30	0	0

Expenses.

Cost of cultivation	13	13	0
Rent	1	4	0
Total ...	15	1	0
Net profit ...	14	15	0

Bhadoi Kalai (Phaseolus radiatus)

Is cultivated at the end of Bhadoi, and is used in preparing "dâl."

Cultivation.

Put 40 maunds of manure on the land in the month of Chyet, and up to Jeth plough three times. In Asarh, after ploughing once more, sow one seer of seed broadcast and harrow in. The "kalai" ripens in Bhadro, when the plants are to be taken up by the roots and thrashed.

Gross profit.

	Rs.	A.	P.
3 maunds of kalai	6	0	0
2 jalis of chaff	0	12	0
Total ...	6	12	0

Expenses.

Cost of cultivation	1	15	0
Rent	1	4	0
Total ...	3	3	0
Net profit ...	3	9	0

Bhita Lands.

This class of land does not exist anywhere except in the jungle districts west of thana Mouresher.

The Sonthals take settlements of some land for the purpose of colonising and bringing it under cultivation. All, however, do not take the settlements directly from the zemindar. There is one "manjhi" and "godait" in every village who take the settlements. The quantity

of land is not fixed by beeghas, but by boundaries within which the lands are situated, and the lands are settled at a rental called "rasodi," *i.e.*, not fixed.

The entire quantity of land so taken is equally divided between the "manjhi" and "godait" and those who intend to settle on it, and each share is called a "rek." The rental due on the share of the "manjhi" and "godait" is divided among the others; the "manjhi" is the mondal of the village; the "godait" collects the rents and makes over the collections to the "manjhi," who pays the zemindar.

Each man sets apart a portion of his "rek" for a house, and "bhita," properly termed "udbastee," on which the crops noted in the margin are grown. Such "bhita" land, attached to each house, is not extensive—amounting to four beeghas at most.

Koda.	Makai.
Keri.	Dedhan.

When the lands are divided into "reks" they are classified under "bhita," but by gradual cultivation they become fit for rice. The rate of rental of rice lands is fixed at the pergunnah rate.

The wages of the laborers employed in reaping the rice are paid in kind. The land does not require manure, the dung of the grazing cattle and the falling leaves sufficing for the purpose.

They have no idea of measurement by beeghas, but calculation shews the rental of "bhita" land to be about one rupee per beegha.

The mode of cultivating crops on "bhita" land is described below.

Koda (*Paspalum krobiculatum*)

Is a kind of very fine rice, similar to the seeds of the grass called "shama." Plough the land once in Jeth and once in Asarh; sow 1¼ seer of seed broadcast and harrow in. In the month of Agrahayan the crop ripens.

Kheri (*Paspalum orbiculare*)

Is also similar to the grass called "shama." The grain produced is a little rounder and larger than the "kada" rice. The mode of cultivation is the same.

Makai (*Maize zea mays*).

"Bhuta" is called by this name. Plough the land twice in Baisakh and once in Jeth; sow 2½ seers of seed broadcast and harrow in; in Srabon dig the earth once. The crop ripens in the months of Bhadro and Assin.

Deo-Dhan (*Holcus saccharatus*).

This is not grown on the lands themselves, but on their margins. "Khoi"* is made of it. The cost of cultivation per beegha has not been ascertained.

* A kind of food made of parched grain—EDITOR.

Cost of Cultivation and Profit Derived.

CULTIVATION PER BEEGHA.					Crop.	Items.	Cost.		
Crop.	Outturn.	Price.							
	Maunds.	Rs.	A.	P.			Rs.	A.	P.
Koda	4	3	12	0	Koda ..	2 ploughs ...	0	6	0
						Seed	0	0	9
Deduct		1	10	9		2 laborers	0	4	0
Net profit		2	1	3		Rent	1	0	0
Kheri	4	3	12	0	Kheri ...	Cost of cultivation, including rent	1	10	9
Deduct cost of cultivation ..		1	10	9					
Net profit ...		2	1	3					
Bhuta	4	4	0	0	Bhuta	3 ploughs	0	9	0
Deduct cost of cultivation ...		2	11	0		2½ seers of seed	0	2	0
Net profit		1	5	0		7 laborers for digging	0	14	0
						1 laborers for taking down the crops	0	2	0
						Rent	1	0	0
							2	11	0

The crops generally grown by the ryots have been described above; special crops are given below.

Kurti Kalai

Is similar to "barbati" (*Dolichos catjang*) in formation, but very small in size. No "dâl" is made of this "kalai." It is sown on the borders of land on which mulberry or sugarcane is grown, and sells at ⅕ pice per seer.

Red Potato (*Convolovlus battatus*)

Is a root of red color and sweet taste, which can be eaten both uncooked and cooked. It is grown on the borders of the plots, and sells at ½ anna per seer.

Turmeric and Ginger

Are grown on the borders of the lands as above, and of plots on which "brinjal" and other vegetables are grown; they sell at three pice per seer.

Cucumber

Can be eaten uncooked and cooked; the plants are grown on the borders of plots. Cucumbers sell at two per pice.

Jhinga (*Luffa acutangula*)

Is a kind of vegetable, not eaten uncooked; it sells at ½ anna per seer.

Purul (*Luffa pentandra*)

Is a kind of vegetable used for curry; not eaten uncooked; grown on the borders of plots. The price is five or six per pice.

Chillies (*Capsicum frutescens.*)

Grown on the borders of plots; sells at three pice per seer in the moist state.

Safflower.

There is no general cultivation of this ; the Mahomedans grow it for their own use on the borders of the aforesaid lands. It sells at eight annas per seer.

The crops marginally noted are grown on lands for domestic use. "Seim" is grown on the borders of plots on which mulberry, sugar-cane, or other vegetables are grown.

Sosa (cucumber).	Purul.	Begun (brinjal).
Lauk (chillies).	Ponka sak.	Kanta (*Dioscorea Pentaphylla*).
Low (pumpkin).	Natar sak.	
Kela (plantain).	Paisak, (*basella alba* and *rubra*).	
Kumra (gourd, *cucurbita pipa*).	Shim (kidney bean).	
Dingili.	Palong sak.	
Jhinga.		

Principal Trees.

The bur (Banyan) (*Ficus indica*), Assotha (Pipal) (*Ficus religiosa*), mango, katal (jack), tal (*palmyra*), arjun (*hagerstramia regina*), are some of the large trees. There are also tamarind trees, but not of great size. There are muhooa (*mohwa*) (*bassia latifolia*) trees on the west of thana Mouresher, from the flowers of which liquor is manufactured ; the residents make cakes of it mixed with rice ; the produce, however, is not abundant or the trees numerous.

Fibrous and other useful Plants and Products.

Mushina (linseed) (*Linum usisatissimun*) ; this not separately grown, but cultivated along with other winter crops, generally on "do" lands.

When the crop is ripe, the plants are rooted up, trodden out, and then pounded. The process of extracting the fibre is unknown in this district.

To extract the fibre the upper part of the plant with the seeds is cut off and the remainder of the plant steeped. It is a matter of doubt whether the fibre would repay the cost of extracting, as the plants grown here are very thin.

Boutokari.

This plant is at most 3½ cubits high, and as thick as a goose-quill, with few branches and one stem ; towards the top it throws out leafy branches on all sides, which are eaten as vegetables.

The color of the plant is green and white, and the shape of the fruit long. It is grown in every village ; the fibre is not extracted.

Lalited.

This plant is at most one cubit high, and as thick as a goose-quill ; it throws out leafy branches from a little above the root, which are eaten as vegetables. The color of the plant is red. The shape of the fruit round. The fibre is not extracted here.

Sun (Crotolaria juncea).

This plant is at the most 4½ cubits high, and as thick as a goose-quill ; the stalk is straight and begins to flower and bear fruit one foot from the top. The color of the plant is green and white.

This plant is cultivated here, but not to a great extent. The cultivators grow it according to their own requirements, and when the fibre is extracted keep as much as they want for their own use and sell the remainder. No "sun" worth exportation is grown.

Akanda (*Axlepias gigantea*)

Is a wild plant; no one cultivates it; it is common and grows of itself in waste lands; its juice mixed with salt, used externally, is an anodyne; cotton is found in its seed-vessels. The fibre is not extracted here.

Chhagal batee (*atragene zeylanica*).

This is a kind of wild plant also named "koka." It is not cultivated and is not common. It has a milky juice; used in the treatment of ringworm. Two seed-vessels grow on one stem and resemble the teat of a goat: hence the name "chhagal bati." There is cotton within these vessels; no fibre is extracted from the plant grown in this district.

Ganja hemp (*Cannabis indica*)

Is not grown here. Now and then wild "sidhi"* plants are met with.

A preparation of hemp.—EDITOR.

Deras or Ramjhinga

Is not generally cultivated here, but a few plants are grown as vegetables on homestead lands and on the borders of vegetable gardens. It does not produce fibre.

Petari (*Sida Asiatica*).

This is a wild plant and is not cultivated by any one. It is not common.

Mestapat (*Nibiscus cannabinus*).

Not cultivated here.

Ketaki (*Pandanus adoratissimus*)

Is not cultivated here. It is a wild plant growing of itself, met with here and there.

*Murba or Barochokra**

Is also called "suchfor," and is a wild plant not cultivated by any one. It is found in some villages, and is used in medicine; the fibre is not extracted here.

* Perhaps *croton oblongifolium* or *croton jonfra*.—EDITOR.

Konga

Is a wild plant; the fibre is not extracted here.

Plantain.

These trees do not flourish in this district; the fibre is not extracted here.

Pineapple

Is not generally cultivated; a few plants are met with in some gardens.

Pat (*Corchorus olitorius*), *Benpat, Khosta,*

Are not cultivated here.

Tal, (*Palmyra*) (*Borassus flabelliformis*).

These trees abound here. Their number is greater than that of any other tree; they are grown on the banks of tanks. The kernel of the unripe fruit is called "talbichi" and is eaten; the fruit is also eaten when ripe; from the leaves mats are made, and from the "coir" (fibre) broomsticks; from the old trees, canoes, posts, supports, &c., are made. The mode of extracting the fibre is not known here.

Babwi

Is a kind of grass; the cultivators grow it on the borders of mulberry and other lands. After being bound in bundles, string is made from it. This string is used in house-making, and it is said that white-ants cannot injure it. It is not cultivated much, but according to the requirements of the cultivators; it does not yield fibre.

Khaskas—Bena (*Andropagon muricatus*)

Is the root of the "Gonda Bena;" no one cultivates it; it grows wild on waste lands and on the banks of rivers. It is not an article of trade, and is not used as fibre.

Shur (*Saccharan sara*)

Is grown by the cultivators on the borders of their lands; in some waste lands it grows wild. It is used for various purposes in this district; betel-growers and thatchers make use of it, and it serves for planks in "mati-kotas," where it is spread on the beams, and earth laid over it.

Petel

Is a thinner kind of "shor," grown and used similarly; barns for storing paddy are made of "petel." There are many such "petel" golas.

Cocoanut

Is not generally grown here.

Gooa—Tupari—Areca—Palm (*Areca gracilis*)

Is not grown here.

Straw

Is produced in large quantities here, and is used for feeding cattle and in thatching.

*Ikhu Khoa**

Is used as firewood.

* Refuse of sugarcane.—EDITOR.

Jonar Gach

Is grown occasionally on homestead lands on the west of thana Mouresher; the Sonthals grow a little, but extract no fibre.

Deo-dhan (*Holcus Taccharatus*).

As above.

Khetpapara (Mullugo pentaphylla)

Grows on the rice lands in every village, and may be found after the paddy has been cut. It is a febrifuge, and is used with many other medicines. It is not sold, but is gathered when required; nor is it exported.

Haparmali (Echites dichotoma)

Is a kind of creeper, the leaves of which are similar to those of "mulika" flower (*Jasminum sambae*). The juice of this plant heals sores; it abounds in the village Baurcha in thana Burrwa.

Indro Gop

Is a kind of insect, so called in the Sanskrit language, and "birhanti" in Urdu language. It is called "asarhi-poka" by the people of this district. These insects are found in sandy or gravel lands. When the rainy season arrives, they come out of their holes and creep on the surface. Numbers are seen in the month of Asarh, whence their name "asarhi-poka." The insect is not larger than a coffee-seed, and resembles red velvet in color.

These insects possess heating properties, and are used in various kinds of medicines; they are preserved in bottles with "jira," dried and eaten by women after delivery with prepared betel; two insects are eaten thrice a day for three days, when the cure is considered complete.

They are also used in fever cases, two insects being given in betel-juice with a little honey, and the dose repeated till a cure is effected, but not more often than thrice a day.

Paper Manufacture.

Paper is not made here, though there are many products of this district suitable for its manufacture.

There is no trade in fibrous articles in this district. The plants, &c., enumerated above can be grown, but the cultivators are ignorant of the profit which might be derived from their cultivation.

General Custom and Usage.

Generally the people here live by agriculture, and those who are very poor and have no lands of their own cultivate the lands of others as "krishans."

Formerly the cultivating classes had twist spun at their houses by their women and used the clothes made of this twist, but the cheapness of European goods has wrought a change in this respect. The cultivation of cotton is gradually disappearing, and better clothing is worn. Formerly two "dhoties" and one napkin would have been sufficient for a man for the whole year, now he requires four "dhoties" and two napkins, and over and above these, one "dhoti" and one sheet for great occasions. The latter "dhoti" and sheet are called "tola dhoti," meaning a "dhoti" kept for use on special occasions, such as visiting, &c. A similar custom prevails among the females.

Though the general use of stuff made of home-spun thread has disappeared, it is still used for common wear. There is no change in the condition of the poorer classes, who still manage as before with two "dhoties" and one napkin a year. While sleeping at night during

winter they cover themselves with straw. They are capable of bearing any hardship save the want of country liquor, "patchwai."

Boiled rice, dâl, fish, curry, turmeric, and milk, ghee, molasses, and parched rice, form the ordinary diet of the people, though there are differences according to their circumstances.

Murhi.

"Murhi," or parched rice, is one of the chief articles of food. The quantity of rice consumed for "murhi" in each family is half of what is required for "bhat" (boiled rice). The rice of which "bhat" is made is different from that used for "murhi," and is differently prepared; rice used for "bhat" being prepared by boiling the paddy once, and that for "murhi" by boiling it twice.

The number of meals taken by the people here, and quantity of rice consumed by each class, are given below:—

UPPER CLASS.

Males.

	Chittacks.	
Cooked rice twice a day	12	1 seer
"Murhi " "	4	pakee.

Women whose husbands are living.

		seer.	chs.
Cooked rice thrice a day	16		
"Murhi" twice "	4	1	4

Widows.

Cooked rice once a day	8	0	12
"Murhi" twice "	4		

Boys.

Cooked rice three times a day	6	0	8
"Murhi" four " "	2		

Girls.

Cooked rice three times a day	7	0	10
"Murhi" four " "	3		

LABORING CLASS.

Males.

Cooked rice twice only	20	1	12
"Murhi"	8		

Women having husbands.

Cooked rice three times a day	20	1	8
"Murhi" two " "	4		

Boys.

Cooked rice three times a day	9	0	12
"Murhi" four " "	3		

Girls.

Cooked rice three times	10	0	14
"Murhi" four times	4		

The men when employed in extracting juice from sugarcane and irrigating land take four additional chittacks of rice.

The widows of the Brahmin, Baidya, and Kaista castes take only one meal daily. Widows of some other castes also observe the same rule, but not generally; the rule is stringent with the first three classes. These widows are prohibited from taking any kind of meal, fish included, and must live upon vegetables.

The number of meals and the articles of food now used are the same as those of olden time, the difference lies only in the quantity taken. The present generation is obliged to feed more sparingly than the people of olden time, and is becoming habituated to a smaller quantity of food, the yield having become less and prices consequently higher *

* The Deputy Collector does not appear to have seen the true cause of the rise of prices, which is probably to be attributed to the increase of wealth and of facilities of export —EDITOR.

The females of the lowest classes live upon their own earnings, and do not depend on their children or husbands.

If both the husband and wife are in the habit of drinking, "pachwai" is their chief ailment. They take cold rice in the morning and go to work, and at noon some "pachwai" with "murhi" The price of "pachwai" varies with the price of rice; each person requires four seers to preserve health and strength; more than this produces intoxication.

Half a maund of rice is obtained from one maund of paddy. The kinds of rice noted in the margin are prepared here.

Atab, ushna, bhajano (for "murhi").

Atab.

It is not necessary to boil the paddy in preparing this kind of rice It is not generally used, being heating; it is chiefly used in the poojahs of Hindu deities: some widows eat it; one-eighth of the paddy produced in the district is used in its manufacture.

Ushna.

In the preparation of this kind of rice the paddy is boiled once It is in general use; five-eighths of the entire produce is used in its manufacture.

Bhajano (Rice for Murhi).

The paddy is boiled twice in making this kind of rice; "murhi" is one of the chief articles of food; one-fourth of the entire produce is used in its manufacture.

Preparation of Rice.

Rice is prepared by the females of the cultivators and by professional huskers, who get five seers for the preparation of every maund of rice as remuneration.

Two maunds of paddy give one maund of rice; the husks are thrashed out with the "dhekee." Two females can make 1½ maunds of rice in a day. Females without any other means of subsistence take to this work.

All articles required for ordinary household consumption can be had in exchange for paddy and rice.

Fish, oil, salt, betel, tobacco, spices, and other articles are offered by petty shopkeepers at the respective houses of the residents in exchange for rice.

Rice and paddy are measured in "kachi" seers, which are either made of wood or rattan Half a seer is called a "pai." The seer is 58$\frac{9}{16}$ tolas in weight Rice is not generally sold by weight.

Some women purchase paddy with their own capital and re-sell it in the form of rice.

People in the habit of drinking do not pay for their liquor in cash, but in paddy or rice.

In marts and shops payments in kind for articles in ordinary consumption are more common than cash payments.

Another food article is prepared from paddy called "cheera." It is eaten, well soaked in milk or curds. The price of this article is generally equal to that of rice, sometimes a little cheaper; the extensive use of "murhi" has supplanted it.

Rights of Tenure.

Mokrori jama, mourasai jama, ayma, bhati ayma, nankur, modad mash, kheraj, kharida, and bahara kharida.

Rights of Cultivation.

Jot jama, ganti patta, miadi jot, koofa jot, bhag jot, and krishani jot.

Rent-free.

Confirmed lakhraj.

Land exempted from Rental by the Proprietors.

Devattor, pirottor, kheraji, brohmuttor, mahatran, and khosbas.

Government Service Land.

There are chowkidari chakran lands in every village.

Zemindar's Service Land.

Lands of simanadars, atpaharis' land, and hal sahanas' land. Barbers' lands.

The "mondals" have no lands, nor do they get any fixed pay, but receive gratuities at the time of marriages. They command some respect in their villages, and on "punia" day have the privilege of paying their rent first, and get some sweetmeats, a flower garland, and a sandal on the forehead; no ryot is allowed to pay before the mondal; no appointment connected with the village is obtainable without his consent.

Tenants holding land under ganti patta have a right of occupancy, but the rate of rent can be enhanced. Such holdings are, however, few, most being permanent at fixed rates.

Proprietary rights held in common.

Some zemindaries are held in common, no partition being made. The rent payable by each tenant for the lands he holds is paid separately to each shareholder according to his respective share, the tenant receiving separate receipts.

This condition is very inconvenient and troublesome to the tenants, as they have to take and carefully preserve as many separate receipts as there are shareholders, instead of one receipt for the whole. The presents of sweetmeats, fish, and betel which the tenant has to make to a zemindar on occasions of any marriage in his family must be separately presented to each shareholder; and as each must get a full present, the cost is much greater than it is when there is but one proprietor.

Abwab or Illegal Cesses.

No levy of any kind of illegal cess by the zemindars of this quarter has been ascertained.

Produce and Storage of Productions.

		Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
		Mds.	Mds.	Mds.	Mds.
Amon	...	26,628	5,54,160	39,236	6,20,024
Kartik-sali	...	1,555	1,867	2,354	5,776
Total	...	28,183	5,56,027	41,590	6,25,800

The year succeeding the last famine year gave a full crop to the cultivators; during the subsequent years the produce has amounted to three-fourths of the average. The ryots, therefore, after payment of the cost of cultivation and rent, had only ten annas left, and ran into debt to provide maintenance for four or five months of the year. They take these loans of paddy on promise to repay, with interest, in paddy; a system called "bari." The cultivators cannot save any paddy: for whenever they are in want they are obliged to sell a portion of their stock to provide themselves with funds to meet other expenses of their households. In Agrahayan and Poush they have no other crop save the rice, and are therefore under the necessity of selling the paddy to meet the demand of rent and other expenses.

Molasses.

		Mds.	
Thana Burrwa ...	...	1,02,256	
Thana Mouresher ..	...	1,54,576	
Thana Sacoolipore ...	...	78,876	
Total	...	3,35,708	= 2,46,012 pucca weight.

The ryots sell their molasses, keeping a sufficient quantity for domestic use. The Moyra caste purchase and make it into sweetmeats; there is no exportation of molasses from this district, or manufacture of sugar.

The proceeds of the sale of "rubbee" crops, such as molasses, mulberry, vegetables, cocoons, indigo, cotton, &c, go partly to meet expenses, being sold within the district; wheat and "arahar" are sold to petty traders, some of whom take these articles in exchange for "maskalai," which is in general use here, but does not grow, and is often purchased by cultivators with the proceeds of the sale of other crops, sometimes in exchange for other produce.

Quantity of Paddy in Store.

					Dhân (paddy). Mds.
Thana Burrwa	...	...	...	.	593
Thana Mouresher	...	...	...	...	7,000
Thana Sacoolipore	...	...	...	..	1,860
			Total	..	9,453

9,452 poutis = 7,52,640 maunds of the "kanchi" weight of $58\frac{10}{16}$

tolas per seer, or 5,25,625 maunds of 80 tolas, of paddy are in the stores of dealers who make advances to the cultivators on the "bari" system, which has been described in the report on thana Burrwa.

Advances of seed of "rubbee" crops are taken and repaid double on the crop being harvested; on failure, the principal increases at a compound rate of half the quantity yearly.

Manufactories.

Thana Burrwa	2
Thana Mouresher	1
Total ...	3

The silk filature in thana Mouresher contains 52 pairs of "ghai" (basins), employing 208 laborers.

There is also a filature at Kotasur valued at Rs. 40,000.

The silk manufactured here is sold to firms in Calcutta; the rates are uncertain. The silk turned out from the large filatures is dearer by 1½ rupee per seer than that of the silk manufactured in small.

Smaller Filatures.

Thana Burrwa	20
Thana Mouresher	36
Total ...	56

There were numbers of these filatures; in fact every house in every village has traces of one or two pairs of "ghai," but they have been abandoned for the last five or seven years, owing to failures of the crop; only those which are at work have been entered. These filatures are all established in family residences. There are altogether 483 pairs of "ghais," and, calculating the number of laborers at an average rate of four to each "ghai," 1,932 laborers are engaged. Only males are engaged in these small filatures. In Chyet last 1,134 persons were at work. The value of these filatures varies from Rs. 25 to 100. The silk manufactured in them is not so fine as that of the larger ones, and consequently fetches less.

All the silk manufactured is sold to the larger manufactories and to persons who deal in silk stuff. The price, though uncertain, is found to be Rs. 14 per seer generally.

Manufacture of Silk.

The cocoons from which silk is to be reeled off are boiled to kill the worms and bring off the silk easily. There are earthen pots upon the "ghais" for the purpose.

When the silk of one cocoon is entirely reeled off, the extremity of another is attached to it. The persons who join the extremities are called "kataris;" those who turn the wheels are called "pakdars" (turners); and those who assist are called "jogaree" (help-mates).

The coatings of the cocoons are called "jhuta," and the clearer portion of this is "topa."

"Topa" used to be manufactured formerly and sold at Rs. 80 per maund, but the manufacture has ceased "Jhuta" is sold at Rs. 30 per maund, but formerly it sold at Rs. 60 per maund.

Looms.

Kind of loom.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Silk looms	22	145	.	167
Blanket looms ..	5		4	9
Cotton-thread looms :	577	591	494	1,662
Hemp looms	.	8		8
Total	604	744	498	1,846

Smithy.

Kind of Smithy.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Black smithy ..	59	93	74	226
Brass smithy . .		.	32	32
Total ..	59	93	106	256

Brass Smithies.

There are 32 brass smithies in Bangchatra, thana Sacoolipore, where brass utensils are made from old brass and from brass manufactured on the spot. These are sometimes taken to other districts and exchanged for old brass utensils, or sold to dealers. They also make utensils from brass given to them by dealers, receiving wages for their labor, which range from four to five annas per seer according to the quality of the work. Brass is sold by weight of $58\frac{10}{16}$ tolas' seer.

Old brass is sold at three seers per rupee. The utensils made here are taken to several districts by dealers and by the smiths themselves. It has been ascertained that utensils to the value of Rs. 8,000 are sold yearly.

Each smithy is worth Rs. 40.

Potter's Wheels.

Thana Burrwa	200
Thana Mouresher	152
Thana Sacoolipore	151
Total .	503

Goldsmith Shops.

Thana Burrwa	65
Thana Mouresher	77
Thana Sacoolipore	58
Total ..	200

Goldsmiths' wages for the manufacture of silver ornaments are an anna for each tola of silver worked, and for gold one rupee for each tola. Should the ornaments made be filigree, or made of strings of gold, the charge amounts to Rs. 1-8 per tola.

The ornaments made are not exported.

Indigo Factories.

Thana Mouresher	1
Thana Sacoolipore	2
Total	3

There is an indigo factory in village Gunutea, thana Mouresher, with two pairs of vats. It belongs to a native, and is in working order. There are two or three more factories in this thana, but they ceased working long ago. The value of the factory in working condition is Rs. 3,000. There are two factories in working order in thana Sacoolipore: one in village Harmoor, with eight pairs of vats, the value of which is estimated at Rs. 30,000; the other in village Bijra, with nineteen vats, valued at about Rs. 50,000. There is an European superintendent over these two factories.

Indigo for these factories is grown in villages of different thanas; about 2,000 beeghas of land in Sacoolipore are under indigo.

The indigo of the factories belonging to the Europeans sells at a higher price than that of those belonging to the natives.

Carpentry.

Thana Burrwa	100
Thana Mouresher	190
Thana Sacoolipore	110
Total	400

Besides the carpenters by caste, some persons of Bagdi, Dom, and Bowri castes follow this trade. Only articles required by the people of the district, cart-wheels, door-frames, doors, windows, beams, rafters, &c., and "taktaposh" (wooden platforms), are made. Wages range from Rs. 4 to Rs. 7-8 a month.

Dwelling-houses here are mostly made of wood. The roof-frame, whether made of wood or bamboos, is made by carpenters.

Most of the houses are two-storeyed, and called "matikota."

Temples of Siva (648).

Thana Burrwa	Pucca	80
	Kuncha	...
Thana Mouresher	Pucca	192
	Kuncha	61
Thana Sacoolipore	Pucca	164
	Kuncha	151
Total	Pucca	436
	Kuncha	212

These idols are daily worshipped; there are no almshouses attached to them. Some of the founders have assigned lands, the proceeds of which are applied to the expenses of the worship. There is no grant for the public benefit attached to these temples.

Village Deities (1018).

Thana Burrwa	Pucca	...
	Kuncha	210
Thana Mouresher	Pucca	62
	Kuncha	303
Thana Sacoolipore	Pucca	71
	Kuncha	372
Total	Pucca	133
	Kuncha	885

Every village has some deities, but all have not a distinct form; some are daily worshipped, and some at specified times. Lands are assigned by the zemindars for their worship, but there are no almshouses or establishments for the public good attached.

Daily Worship (758).

Thana Burrwa	Pucca	104
	Kuncha	300
Thana Mouresher	Pucca	50
	Kuncha	250
Thana Sacoolipore	Pucca	14
	Kuncha	40
Total	Pucca	168
	Kuncha	590

These deities are of different forms, and include the "salgrams"* Their temples are erected within houses, and worship conducted at the expense of the founders; no almshouses or establishments for the public good are attached. The idols in the houses of Brahmins receive offerings of cooked rice, and those in the houses of "Sudras" of raw "atab" rice.

Penates —EDITOR

Akhra, a place where Biragis meet, (25).

Thana Burrwa	Pucca	
	Kuncha	6
Thana Mouresher	Pucca	4
	Kuncha	4
Thana Sacoolipore	Pucca	2
	Kuncha	9
Total	Pucca	6
	Kuncha	19

These belong to the Boistubs, who defray the expenses by begging. They contain no idol, but occasional festivals are celebrated in them. If any Boistub happen to come to the "akhra," he or she gets one meal. The chief man has several disciples, who assist him by contributing what they earn by begging Persons of any caste may become Boistubs after being initiated, a ceremony called "bhek." They do not observe Hindoo rites, such as "sradha," &c. Some of these "akhras" belong to the "Bouls."* In the village Deyas in thana Mouresher there is one which is called after the name of "Khepama," where a woman known by the name of "Khepama" lived She stored nothing, but fed the Boistubs who went to her abode by money and articles obtained by begging, which was her mode of livelihood. She was a woman of renown, and fed daily 100 persons. She is dead; the "akhra" still lives, but persons are not now fed there as they were during her lifetime In the month of Srabon a "mohatsab" takes place there, when persons of different castes, about 2,500 or 3,000 in number, eat together without any distinction whatever.

* A kind of religious mendicant.—EDITOR

There is another "akhra" at Kotasur, where a "mohatsab" takes place in the month of Chyet, when about 1,000 persons are fed The expenses of this ceremony are defrayed by one Shyam Chand Mondul. Nothing worthy of notice takes place in any other "akhra."

Mosjids or Mosques.

	Pucca.	Kuncha.
Thana Burrwa	4	8
Thana Mouresher	10	28
Thana Sacoolipore . .	13	61
Total ...	27	97

The Mahomedans recite their prayers in these. No almshouse is attached to any one.

Astana.

Thana Burrwa	100
Thana Mouresher	150
Thana Sacoolipore	120
Total	370

In Mahomedan villages there are raised platforms, where earthen figures of horses are thrown and people offer sweetmeats, a ceremony called "sirni."

Ganjes or Marts.

Thana Mouresher	1
Thana Sacoolipore	1
Total	2

The ganj in thana Mouresher is at Mullarpore: that in Sacoolipore in Krinnahar.

Hât.

Thana Burrwa	3
Thana Mouresher	6
Thana Sacoolipore	6
Total	15

These are held twice a week. Those held in villages close to each other are not held on the same day. The zemindars get "tola" on the sale of vegetables and imports on other articles.

There are hâts where rice is sold in small quantities in these four villages* of thana Burrwa.

* Rajhat, Simulia, Panchthopee, and Katuri.

There are hâts in these villages* of Mouresher, but no rice is sold in them.

* Kotasur, Parchunderpore, Parchunderpore Hât, Satipalsa, Birchonderpore, and Ramkishonpore.

There are hâts held in these villages* of thana Sacoolipore, but no rice is sold in them. A kind of stinking, rotten fish is brought during the months of Agrahayan, Poush, and Magh to the Motipore hât; the fish is brought by traders from the river Padma.

* Khujutipara. Itanda. Pakuri. Sunsut. Serandi. Motipore.

This fish, which has been sold in the mart for the last thirty years, is in general use. The traders of this part of the country retail it.

Bazaar.

Thana Burrwa	..	..	..	1
Thana Mouresher	.	.	..	2
		Total	...	3

Rice, vegetables, &c., are sold daily in these bazaars. Other articles are obtained at shops.

There are bazaars in the villages of Panchthopee and Maisa, in thana Mouresher. The zemindars get "tola" for vegetables, &c., in bazaars as well as in hâts.

Mela (Fair).

Thana Burrwa—					
Panchthopee ...	...	..	...	..	1
Thana Mouresher—					
Birchunderpore	..	...	..	..	1
Kotasur ...	.		...	...	1
			Total	...	3

The "mela" at Panchthopee commences on the day of "Rash Jatra," and continues for fifteen days; shopkeepers from various parts of the country come; the daily attendance is about 100 to 150.

That at Birchunderpore commences on the last day of the month of Poush and continues for 1½ month. Shopkeepers from Calcutta, Moorshedabad, Cutwa, &c., bring their shops and sell various articles. Some 200 to 300 persons daily come and go. Two "mohatsabs," one at the commencement and the other towards the close of the fair, take place. Two hundred persons are fed at each. The expenses are defrayed by the persons who attend the "mela."

There is an idol named "Banka Roy" in this village belonging to the "Gossamis" of the village, who have many disciples and control the Boistubs. When Boistubs take the "bhek" or initiation, or are married, the "Gossamis" get Re. 1-4. The marriage of the Boistubs is called "mala chundun." This present is made by every Boistub.

The "mela" at Kotasur takes place in the end of the month Chyet, and continues for a month. Several shopkeepers from different parts of the country come to it to sell various articles; some 100 to 150 persons daily come and go.

Most of the inhabitants of this part of the country profess the Boistub religion; many persons belonging to castes other than the highest get themselves initiated.

Girls of tender age, not belonging to the castes in which widow-marriage is allowed, get themselves initiated, and persons who have no heirs to perform their "sradh" after their death. If there be any marriage or other ceremony in any family when a relative happens to be in extremes, and the death would interfere with the ceremony, the relative is made a Boistub, and the family is no longer required to observe the mourning rites. Persons who find themselves unable to perform the funeral ceremonies of their parents get them made Boistubs before death, and thereby escape the necessity of observing the mourning rites and of performing the "sradh." Persons excommunicated on account of crimes or bad conduct take the "bhek" and

become "Boistubs;" for this an offering of Re. 1-4 to the "Gossami" and a dinner to a few Boistubs is all that is necessary.

Places of Learning.

*Tolls.**

Thana Mouresher	2
Total	2

There are only two such institutions in thana Mouresher, in the villages of Gonotea and Brahmin Bohora. The number of students is five or six, who study Sanskrit, grammar, and literature.

Pathsalas.

Thana Burrwa	8
Thana Mouresher	23
Thana Sacoolipore	6
Total	37

The villages engage a teacher called a "sarkar."

Schools.

Thana Burrwa	1
Thana Mouresher	4
Thana Sacoolipore	2
Total	7

Government Schools or Subsidized Pathsalas.

Thana Burrwa	3
Thana Mouresher	5
Thana Sacoolipore	1
Total	9

Chief Villages or Towns.

In Thanv Burrwa:

Panchthopee, Sunderpore, Burrwa, Jugsora, Solpa, Kuli, and Srihatti.

In Thana Mouresher:

Moureshur, Gonpore, Birchunderpore, Parchunderpore, Mullarpore, Kundala, Satpulsa, Ulkunda, Dakabati, Khamarda, and Bajitpore.

In Thana Sacoolipore:

Ukchoron, Krinnahar, Daskolgram, Noadda, Nanoor, Itanda, Nobasta, Khujutipara, and Serandi.

Ghuting (Lime-stone)

Is a sort of gravel containing lime, found both on and beneath the surface of the earth; it is burnt with wood or coal. To burn 100 maunds of ghuting, 50 maunds of wood or 17½ maunds of coal are

* These four statements I have ascertained to be inaccurate. According to the census returns there are 94 schools in thana Mouresher, 12 in Sacoolipore, and 37 in Burrwa.—Editor.

required. The processes of burning it with wood and coal are severally described below.

The kilns are made to contain from 30 to 200 maunds of ghuting, and built of earth or brick in a circular shape, growing larger towards the top. According to the dimension of the kiln, from four to twelve openings are left at the base as air-passages, joined to each other by trenches Besides these, a large opening is left by which the burnt ghuting is removed.

Burning Ghuting with Wood.

On the trenches at the bottom of the kiln bricks are placed, and, the mouth being closed with mud, small pieces of firewood are placed in the middle, and thick pieces on the sides of the kiln, which is stacked in this way to within one cubit of the top, and then lit in the centre. When the kiln ceases to smoke, it is a sign that the ghuting is burnt; the large opening closed with mud is opened, and the ghuting taken out with a hoe.

Burning Ghuting with Coal.

The ghuting and the coal are placed in layers one over the other.

The lime produced by this process is strong, and if used too freely in masonry work causes it to crack: hence it makes one-third in mortar—*i.e.*, 1½ parts "surki," ½ sand, 1 lime. For works under water this lime is excellent, as a larger quantity of lime may be used without danger of cracking.

Two kinds of lime are obtained by these means, viz. "panki" and "gungra," in the preparation of which different processes are followed.

Panki.

To prepare this kind of lime, a pit (5 feet × 2½ × 2½) is made, on the bottom of which bricks are laid: this is called a "hrad." These pits are made of different dimensions; the pit is filled with water, and the burnt lime-stones thrown in. When the hissing sound produced begins to die away, the lime-stones burst and the water becomes cool; the lime-stones are then moved to and fro with a hoe, and afterwards sifted through a sieve, when all the lime remains in the pit, and the unburnt portions of the lime-stones, called "ora," are separated and may be burnt mixed with ghuting. This lime is like mud, and is thence called "panki chun."

One hundred and fifty maunds of this lime are obtained by burning 100 maunds of ghuting; the reason of the increase is the addition of water. The "Chunaris" and "Baitis" prepare lime in the interior in this way.

Gunra Chun.

To prepare this the burnt ghuting is spread on the ground, slaked, and run through a sieve, after which it is powdered by a "dheki" and again sifted. The remainder of the "ora" is kept separate from the lime and used as "khoa." By burning 100 maunds of ghuting, 60 maunds of this lime and 40 maunds of "khoa" are obtained.

Ghuting is gathered and stacked ; it sells at the rate of 100 baskets of one packi maund for Re. 1-2.

Profit and Expense of Lime Manufacture.

Preparation of lime.					Expense in preparing lime.				Remarks.
Article.	Quantity of lime.	Price.							
		Rs.	A.	P.	*Gunra chun*	Rs.	A.	P.	
"Gunra" lime ..	60 maunds.	9	10	0	Ghuting, 100 mds.	1	2	0	The lime is prepared at this expense in places where ghuting is obtained, but when it is brought from a distance the expense is greater.
"Khoa" ...	40 ditto	1	5	0	Coal, 17 mds.	2	12	0	
					Firewood ...	0	2	0	
		10	15	0	6 coolies for setting and preparing lime ...	0	12	0	
Deduct expense ..		5	8	0					
Profit ..		5	7	0	6 coolies for setting and powdering	0	12	0	
"Panki chun" ..	150 maunds	12	0	0					
Deduct expense .	.....	5	10	0	Total ...	5	8	0	
Profit	.....	6	6	0	*Panki chun.*	Rs.	A.	P.	
					Ghuting, 100 mds.	1	12	0	
					Firewood, 50 mds.	3	8	0	
					Thin pieces of firewood	0	4	0	
					6 coolies for setting and preparing lime ...	0	12	0	
					Total .	5	10	0	

Iron Mines.

Bhaurkola, Dhumaknagoi, Kapasdanga, Pachami, Dhurumnagoie, Damiah.

In the villages marginally noted, on the west of thana Mouresher, which is rocky, there are quarries of iron-producing stone called *bich-pator* (seed-stone). Some twenty-five or thirty years ago there was an iron manufactory in village Bhaurkola ;* iron factories were termed *katsals*, and used to exist in this district, but the manufacture was abandoned owing to the cheapness of English iron. When iron was made here these *bich-pators* used to be melted in copper caldrons by wood-fires. When the stones melted, the liquid flowed through a cistern to another vessel, coagulated, and the manufacture was complete.

* Factories are now about to be opened by an European company at Muhamed Bazaar and Mullarpore in the north of the district.—Editor.

Chowkeedars.

In every village in this district there are chowkeedars who have lands called "chowkeedari chakran" lands. The zemindars have no right to these lands, as at the time of the decennial settlement they were excluded from settlement and the title thus transferred to Government.

The chowkeedars keep watch by night, and during the day follow professions peculiar to their castes, or any other work. Each chowkeedar is supposed to hold sufficient land to bring him in Rs. 36 per annum; fromnine to sixteen beeghas is the usual area, but the chowkeedars have, by fraud and collusion in many cases, reduced these holdings since the period of the settlement; and as there are no surveys, their ascertainment would now be a difficult task.*

The number of chowkeedars in every village is too large; if properly distributed, the number might be very much reduced.†

* This is quite correct —EDITOR.

† This remark is just; the numbers might be advantageously reduced, and the service lands redistributed —EDITOR.

When the zemindars had the chowkeedari work under their control, murder, known by the name of *kattapara*, often occurred in this country, which is up to the present time called *kattapordes*, in jest.

Kattapara.

A traveller used to be murdered, the corpse taken to another village beyond the limits of the village where the murder was committed, and laid with the head in the direction it was to be sent on. On a given signal the chowkeedars of that village used to come, take the corpse on to another village, and follow the same procedure. By these means the corpse was carried to a great distance in a single night. No trace was left at the place of occurrence, and the zemindar within whose jurisdiction the murder was committed saved from risk. For this reason the zemindars maintained an excessive number of chowkeedars in their villages, who are retained up to the present day.

Bearers.

There are many bearers within these thanas; they are paid at the rate of one anna each per *cos*.

IMPORTATION AND EXPORTATION.

Importation.

The undermentioned articles are imported from Calcutta, Moorshedabad, and North-Western districts:—

Tobacco, salt, spices, machine-made cloth, cotton, iron, cocoanut-oil, clarified butter made from the milk of bufflaloes, flour, sugar, jute, betel-nuts, and paper.

The shopkeepers in thana Burrwa procure these articles from Cynthia, Kandi, Moorshedabad, and Katwa; those of Mouresher from Mullarpore and Cynthia; and those of Sacoolipore from Ahmedpore, Bhulpore, Katwa, and Krinnahar.

"Kurkatch" salt is in general use here; "Panga" is not used.

Exportation.

Rice is exported. The season for purchasing rice extends from Agrahayan to Falgoon. The "Kartik-sali" rice is ready in the month of Agrahayan, when the season for selling rice begins, as at this time

the zemindars demand the rents, and the cultivators, having no crop save the rice to meet the demand with, are obliged to sell off a portion of it rather cheap. Many, too, purchase rice for the consumption of the whole year at this time.

Kayal

Rules for Selling Rice.

In every village there are "kayals" (weighmen), who pay Rs. 2 to Rs. 3 to the zemindar under the name of "kayalijoma." In some places there is no "kayalijoma." The "kayals" got one "anjali" (quantity contained in both hands joined together with the palms upward, or a little less than one seer "kucha") of rice for weighing one maund of rice. This they take from the sellers.

The dealers purchase rice from village to village, which they send daily to an emporium called "Godi," the centre of export.

The "kayal" erects a house in the hât, paying rent to the zemindar in addition to the "kayali" rent. Sellers take them on bullocks to the "hât" or "maroi," where the rice is carefully stored and the sellers provided with places to cook and live. There is only one "maroi" in the three thanas.

Rice in small quantities is taken to some hâts for sale. The rice brought to a hât is not sold daily, but on stated market days by "kayals" called "charundars," who pay rent and are remunerated in the manner described above. The rice sold in markets is generally purchased by the public, not by mahajuns.

Wheat, gram, arahar, are sold in a similar way, the "kayals" being similarly remunerated.

The rice from the villages within the Burrwa thana is exported to Cynthia and Katwa; that of Mouresher to Mullarpore and Cynthia; and that of Sacoolipore to Ahmedpore, Bhulpore, Katwa, and Moorshedabad. From Laghatta it is taken to Moorshedabad by boats. Only rice is exported.

Trade in Hides.

There are no hide godowns in Sacoolipore thana. As many hides as the moochis can procure are taken to the godowns at Ulkunda in thana Mouresher and there sold

Hide Godowns.

	Name of village		Number.
Thana Burrwa	Panchthopee	...	1
Thana Mouresher	Degalgram	..	1
	Ulkunda	..	1
	Sakedda	.	2

Panchthopee and Degalgram are the two centres of the hide trade, in each hides to the value of Rs. 1,500 are annually purchased, being brought in from the surrounding villages. The moochis collect the hides of dead cows and goats, and also of beasts sacrificed. The hides are not stored, but are sold immediately after being purchased Panchthopee hides are sold in the godown at Ulkunda, and Degalgram hides to

Sekedda godown. The prices of the hides vary; last year's prices are given below:—

Kind of hide.	Price at which purchased.			Price at which sold.		
	Rs.	A.	P.	Rs.	A.	P
Large cow-hide without mark .	2	10	0	2	12	0
1 „ with „ .	2	0	0	2	2	0
1 middle-sized cow-hide without mark .	1	8	0	1	10	0
1 „ „ with „ ...	1	4	0	1	6	0
1 calf-hide . .	0	8	0	0	9	0
1 large goat-skin . ..	0	4	0	0	5	0
1 middle-sized goat-skin .	0	2	0	0	2	6
1 large buffalo-hide	2	14	0	3	8	0
1 middle-sized buffalo-hide	2	4	0	2	8	0
1 small „ „	1	4	0	1	8	0

Buffalo-hides are very scarce; throughout the year only two or three change hands.

There are three godowns in Ulkunda and Sekedda. Of these the Ulkunda godown, where hides to the value of Rs. 12,000 are annually purchased, is the largest; in each of the two in Sekedda hides to the value of Rs. 6,000 are purchased annually.

The hides are purchased uncured at the rates given above; five seers of "khari" salt are required per hide for curing; powdered salt is strewn on the fleshy side of the hide after it has been soaked for a day; it is then rubbed with porous brick, and, when this has been repeated four times, water mixed with chalk is rubbed once over the hide, and the process is complete. The cost of the hides, after they are cured, is given below:—

Kind of hide.	Per.	Cost.		
		Rs.	A.	P.
Large cow-hide	20	70	0	0
Middle-sized cow-hide	20	60	0	0
Small „	20	50	0	0
Calf's hide	20	30	0	0
Large goat-skin	100	50	0	0
Middle-sized goat-skin	100	25	0	0
Small „	100	12	8	0
Large buffalo-hides	20	110	0	0
Middle-sized buffalo-hides	20	80	0	0
Small „	20	60	0	0

Buffalo-hides are seldom brought to these godowns; they are brought to that at Soory. Skins of sheep are not generally procurable; if brought in, they are sold at the same rate as goat-skins.

Deer-skins, &c., are not brought in here; when such hides are cured they are sent to Calcutta by rail.

Stock.

Number.	Thana Burwa.	Thana Mouresher.	Thana Sacoohpore.	Total.
Cows	20,558	29,203	17 737	67,498
Oxen	16,055	27,025	19,390	62 470
Buffalo-cows	300	162	18	480
„ bulls	60	60	29	149
Total ...	36,973	56,450	37,174	130,597

Number.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Horses	7	21	13	41
Ponies	14	28	12	54
Asses	8	12	.....	20
Sheep	6,363	7,024	6,324	19,711
Goats	3,182	6,613	4,340	14,135
Hogs	125	726	5'9'	1,390

Articles.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Carts	45	662	385	1,092
Ploughs	6,313	12,187	6,655	25,155
Boats	.....	.....	5	5

Marda	4
Jahanabad	1
	5

There are five boats in thana Sacoolipore which lie in the river Adjai, but the river is not navigable throughout the year.

Mussulman Households.

Caste.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Mussulman	2,410	2,726	3,039	8,175
Bedi or Mal	56	232	136	424
Patna	23	21	5	49
Total ...	2,489	2,979	3,180	8,648

By the census papers there are 13,208 Mussulmans in Burrwa, 15,417 in Mouresher, and 14,190 in Sacoolipore; 56,971 Hindoos in Burrwa, 86,019 in Mouresher, and 47,645 in Sacoolipore.—Editor.

Hindoo Households.

First Class.

Caste.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Brahmin	614	1,182	891	2,687
Kaista	175	195	224	594
Baidya	5	6	18	39
Total ...	794	1,393	1.133	3,320

Second Class.

Caste.	Thana Burrwa	Thana Mouresher.	Thana Sacoolpore.	Total.
Agradani	5	11	2	18
Debal Brahmin .. .	35	9	.....	44
Borna ditto .. .	6	25	4	35
Bhat	2	28	28	58
Daibagna	9	26	36	71
Total ...	57	99	70	226

Persons belonging to this class do not cultivate with their own hands.

Third Class.

Chhatri	48	17	1	66
Satgop	2,863	3,388	2,349	8,600
Kamar	71	86	161	318
Kumar	273	303	147	723
Tili	213	960	58	1,231
Gundhabonic	271	297	509	1,077
Mali	9	18	15	42
Moyra	129	267	175	571
Tanti	260	329	336	925
Barui	15	84	..	99
Napit...	142	333	174	649
Rajput	190	423	11	624
Aguri	1	....	323	324
Kurmi	1	1	.. ..	2
Goala .. .	181	29	368	578
Bhuiya or Babhan	..	35	.....	35
Kaibata	280	12	50	342
Baistab	611	871	524	2,006
Ramat		1	.....	4
Kuri	....	28	. ...	28
Halvi... ..		2	.....	2
Sakhari		1	7	8
Total ..	5,558	7,488	5,208	18,254

Fourth Class.

Subarnabonik	58	17	38	113
Sarnakar	92	66	72	250
Chhutar	146	208	177	531
Kolu	224	898	352	1,494
Surri	295	575	520	1,390
Dhoba ...	27	30	31	88
Chasa dhoba	131	65	...	196
Cura	.. ..	373	...	373
Jugi	111	11	28	150
Total ..	1,104	2,263	1,218	4,585

Fifth Class.

Caste.	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	Total.
Bagdi	1,455	1,730	1,430	4,615
Hari	191	578	524	1,293
Dome	193	682	646	1,521
Kotal	47	5	126	178
Bholla	310	162	.....	472
Kama	40	151	27	218
Jalya Kaiharta	65	316	51	432
Baiti	6	23	28	57
Tiyar	19	.....	.....	19
Net	13	728	.....	741
Byadh	1	1	.....	2
Kunni	31	167	5	203
Bouri	90	318	166	574
Moochi	473	171	681	1,325
Khairi	.....	2	.....	2
Parihar	.....	28	.....	28
Lohari	.....	3	.....	3
Gor	.....	10	.....	10
Chunuri	.....	.....	8	8
Chandal	.....	.....	40	40
Lahar	.....	.....	32	32
Kol	.....	.....	4	4
Dhangur	82	220	6	308
Sonthal	.....	460	.....	460
Total ..	3,016	5,755	3,774	12,545

R. D. Hime, *Collector,*
Editor.

Particulars of Land.

Kind of crops.	Thana Burewa.		Thana Moureshee.		Thana Sacoolipore.		Total.		Remarks.
	Beeghas.	Acres.	Beeghas.	Acres.	Beeghas.	Acres.	Beeghas.	Acres.	
Cultivated Lands.									
Rice	142,016 16 2	46,947 2 32	295,522 7 4	97,693 1 15	209,259 22 17½	69,176 0 1	646,798 16 3½	213,817 0 8	Only the lands producing "amun" rice have been classified as rice lands. Those producing "Kartiksali" and "rubbi" crops have been classified as "rubbi suna."
Sugarcane	3,652 8 1	1,207 1 24	4,092 16 2½	1,352 3 39	2,817 16 1	931 2 0	10,563 0 4½	3,491 3 23	
Rubbi suna	7,112 13 6	2,351 1 8	9,350 18 6½	3,191 1 20	12,422 9 9½	4,106 2 14	29,186 1 1¾	9,649 1 2	
Dibi tut	8,524 10 3	2,818 0 6	504 5 16	166 2 33	.....	.....	9,028 15 19	2,984 2 39	
Matal tut	429 10 10	141 3 36	7,819 12 12¾	2,585 0 0	.....	.....	8,249 3 2¾	2,726 3 36	
Alan	380 7 15	125 3 0	2,192 3 8½	724 2 29	200 2 0	66 3 24	2,722 13 3½	917 1 13	
Jedanga	771 9 0	255 0 4	1,144 15 0	378 1 29	315 0 11	104 0 23	2,231 4 13½	737 2 16	
Bhita	.....	.....	992 12 0	328 0 30	.....	.....	992 15 0	328 0 30	
Total ...	162,887 14 17	53,847 0 30	321,919 13 13	106,420 2 35	225,015 0 18½	74,383 0 22	709,522 9 8½	234,653 0 7	
Homestead Land.									
Bastee	6,210 12 18	2,053 0 17	9,297 4 7	3,073 1 34	6,340 16 3¼	2,096 0 23	21,848 13 8¼	7,222 2 33	
Udbastee	229 1 17	75 37	1,302 18 19	430 2 36	1,060 17 0	350 2 31	2,592 17 16	857 0 24	
Total ...	6,439 14 15	2,128 3 14	10,600 3 6	3,504 0 30	7,401 13 3¼	2,446 3 13	24,441 11 4¼	8,079 3 17	

WATER.								
Tanks	14,533 18 9½	4,904 2 17	31 966 13 5¾	10 300 0 23	19,455 13 10	6 431 2 21	65 356 5 5¾	21 605 1 21
Khals	979 16 0	290 3 14	2,725 2 0	900 3 18	1,019 14 10	337 0 16	4 624 12 10	1 528 3 8
Rivers ..	2,235 7 0	738 3 33	1 304 7 10	431 0 52	1,261 6 10	416 3 35	4 801 1 0	1 587 0 20
Total	17 649 1 9½	5,834 1 24	35,396 2 15¾	11,701 0 33	21,736 14 10	7,185 2 32	74 781 18 15¼	24,721 1 9
ORCHARD								
Bagan .	1,507 15 9	498 1 30	4 404 19 8¼	1,456 0 30	2,094 3 3½	692 1 5	8,006 18 0¾	2 646 3 25
Patil, or waste, culturable, but not under cultivation during the last three years	1,132 18 8	374 2 3	2,572 1 2½	850 1 3	442 5 10	146 0 3	4,147 5 0¼	1,370 3 39
Cultivated within the last three years, and now fallow	668 17 16	221 0 17	5,721 0 8	1 891 1 0	189 12 10	59 2 34	6,570 10 14	2,172 0 11
Unculturable .	2,674 19 18	884 1 8	31,814 10-¾¼	10,517 0 31	2,995 9 8	990 0 38	37,485 0 0¾	12 391 2 37
Grazing lands	9,568 10 7½	3,163 0 12	7,263 7 2	2 402 3 2	4 690 17 10¼	1,550 2 33	21,527 9 19¾	7,116 2 7
Total .	14,045 1 9½	4,643 0 0	47,375 19 7¼	15,661 1 36	8 309 4 18¼	2 746 3 18	69,730 5 15	23 051 1 14
Grand total	202,529 8 0	66 951 3 18	419,696 18 10¼	138 743 3 4	264,556 16 13½	87 456 3 10	886,783 3 3¾	293,152 1 32

Labour 2.

District.	Wages per diem. Skilled.	Wages per diem. Unskilled.	Cost per day.	Camel per day.	Donkeys per score per day.	Boat per day.	Remarks.
	Rs. A. P.	Rs. A. P.	Rs. A. P.				
Thana Burrwa	0 2 0	0 1 0	0 4 0	.....	.....	.....	
Thana Mouresher	0 2 0	0 1 0	0 4 0	.....	.....	.....	
Thana Sacoolipore	0 2 0	0 1 0	0 4 0	.....	.....	.....	

Stock 2.

District.	Cows and Bullocks.		Horses.	Ponies.	Donkeys.	Sheep and Goats.		Pigs.	Carts.	Ploughs.	Boats.	Remarks.
Burrwa thana, zilla Beerbhoom.	Cows	20,558	7	14	8	Sheep	6,363	125	45	6,313	...	
	Bullocks	16,055				Goats	3,182					
		36,613					9,545					
	Female Buffaloes	300										
	Male Buffaloes	63										
		363										
Mouresher thana, zilla Beerbhoom.	Cows	29,203	21	28	12	Sheep	7,024	726	662	12,187	...	
	Bullocks	27,025				Goats	6,613					
		56,228					13,637					
	Female Buffaloes	162										
	Male Buffaloes	60										
		222										
Sacoolipore thana, zilla Beerbhoom.	Cows	17,737	13	12	...	Sheep	6,324	539	385	6,655	5	
	Bullocks	19,390				Goats	4,340					
		37,127					10,664					
	Female Buffaloes	18										
	Male Buffaloes	29										
		47										

E I.

Price of Produce at the end of the Year.

	Thana Burrwa.	Thana Mouresher.	Thana Sacoolipore.	REMARKS
	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Price of produce per amount of 82½th seers—				
Rice (paddy)	0 9 0	0 9 0	0 9 0	
Wheat	2 12 0	2 12 0	2 12 0	
Linseed	2 12 0	2 12 0	2 12 0	
Gur	2 12 0	2 12 0	2 12 0	
But	1 6 0	2 12 0	2 12 0	
Mustard	2 12 0	2 12 0	2 12 0	
Til	2 1 0	2 1 0	2 1 0	
Musuri	1 6 0	1 6 0	1 6 0	
Khesari	1 0 6	1 0 6	1 0 6	
Peas	1 11 6	1 11 6	1 11 6	
Arahar	1 6 0	1 6 0	1 6 0	
Onions	1 11 6	1 11 6	1 11 6	
Garlic	2 11 0	2 12 0	2 12 0	
Seim	2 12 0	2 12 0	2 12 0	
Plough bullocks, each	25 0 0	25 0 0	25 0 0	
Sheep, each	0 10 0	0 10 0	0 10 0	
Fish per seer	0 2 9	0 2 9	0 2 9	
Vegetables per "kahon" according to kind.	From Rs. 6 to Rs 40, according to kind and size; roughly, about Rs 1-6-11 per maund			
Mulberry leaf per beegha or about 1½ local maund	1 0 0	1 0 0	1 0 0	

PART III.—D I.

I—Crops Cultivated in Acres, Actual or Approximate.

DISTRICT.	Rice.	Wheat	Other food-grains.	Oil-seeds.	Sugar.	Fibres.	Indigo.	Vege-tables.	Mul-berry.
Thana Burrwa, zilla Beerbhoom	49,296	*	Arahur. 255	*	1,207	. . †	. ...	125	2,960
Thana Mouresher, zilla Beerbhoom	1,00,610	... ‡	706	‡	1,352	142	132	724	2,750
Thana Sacoolipore, zilla Beerbhoom	72,712	§	Arahur. 404	... §	931	200	330	66	

* Land not appropriated to separate crops, "sali" & "do," produce rice and cold-weather crops; accordingly all these lands have been entered under rice, mulberry land is shewn separately

† In "jedanga" there are grown "arahar," "seim" and "begun." These could not be separately measured, all entered under "arahar."

‡ Land not appropriated to separate crops, "sali" & "do," produce rice and cold-weather crops, accordingly all these lands have been entered under rice. In "jedanga" and "bhita" there are grown "arahar," "seim" and "begun;" these could not be separately measured; all entered under other food-grains.

§ Land not appropriated to separate crops, "sali" & "do," produce rice and cold-weather crops, accordingly all these lands have been entered under rice This thana does not produce mulberry.

In "jedanga" there are grown "arahar," "seim" and "begun." These could not be separately measured, all entered under other food-grains.

PART I.—E 2.—FISCAL.

Surveyed and assessed area, in acres, of Thanas Burrwa, Mouresher, and Sacoolipore. District Beerbhoom.

DISTRICT.	Cultivated. Irrigated. By joint work.	Cultivated. Irrigated. By private individuals.	Cultivated. Unirrigated.	Total.	Uncultivated. Grazing lands.	Uncultivated. Culturable.	Uncultivable waste.	Total area assessed.	Assessment. Gross amount.	Assessment. Rate per acre.	Assessment. Rate per acre on culturable land.	Assessment. Rate per acre on total area of settlement.	REMARKS.
Thana Burrwa, zilla Beerbhoom	.....	54,345 2 20	...	*a* 54,345 2 20	3,136 0 12	*b* 595 2 20	484 1 8	...	...	...	...	...	Village site... 2,128 3 14 Water ... 5,834 1 24 7,963 0 38
Thana Mouresher, zilla Beerbhoom	.....	107,876 3 25	...	107,876 3 25	2,402 3 2	*c* 2,741 2 3	10,517 31 0	...	...	...	...	...	Village site... 3,504 0 30 Water ... 11,701 0 33 15,205 1 23
Thana Sacoolipore, zilla Beerbhoom ...	.....	75,077 1 27	...	75,077 1 27	1,550 2 33	*d* 205 3 27	990 0 38	...	...	...	...	...	Village site... 2,446 3 13 Water ... 7,185 2 31 9,632 2 4

(*a*) Culturable, but not under cultivation during the last three years 374 2 3
Cultivated within the last year and now fallow 221 0 17

(*b*) Includes "bagan," or orchard land.

(*c*) Culturable, but not under cultivation during the last three years 850 1 3
Cultivated within the last three years and now fallow 1,891 1 0
2,741 2 3

(*d*) Culturable, but not under cultivation during the last three years 146 0 33
Cultivated within the last three years and now fallow 59 2 34
205 3 27

D.

Rates of Rent and Produce.

District	Average rent per acre for land suited for					Average produce of land per acre in the						Vegetables, &c
	Rice	Wheat.	Inferior grains.	Oil-seed.	Fibres.	Rice.	Wheat.	Inferior food-grains.	Oil-seeds.	Fibres.	Sugar.	
Thana Burrwa	*	*	*	*	*	2,778	418	Chunna ... 623 Musuri ... 623 Mutor ... 623 Khesari ... 354 Arahar .. 440	Musina .. 308 Mustard .. 220 Til ... 703	Sun 703	4,924	Onions 5,266 Garlic 3,166 Vegetables 2,462 Lahta Sak 2,814 Mulberry 18,467
Thana Mouresher ...	*	*	*	*	*	2,778	418	Chunna ... 623 Musuri ... 623 Mutor ... 623 Khesari ... 354 Arahar ... 440 Kodo ... 968 Jonara ... 968	Musina 308 Mustard .. 220 Til ... 73	Sun 703	4,924	Onions 5,266 Garlic 3,166 Vegetables 2,462 Lahta Sak 2,814 Mulberry 18,467 Indigo 198,165
Thana Sacoohpore	*	*	*	*	*	2,778	418	Chunna ... 623 Musuri ... 623 Mutor .. 623 Khesari ... 354 Arahar ... 440	Musina ... 308 Mustard ... 220 Til ... 73	Sun 703	4,924	Onions 5,266 Garlic 3,166 Vegetables 2,462 Lahta Sak 2,814 Mulberry 18,467

Columns marked (*) cannot be filled up, as there are no rates according to crops grown but according to kind of land.

	Rs.	A.	P.
Sali auwal	10	15	6
„ Duim	6	13	0
„ Seim	4	14	6
„ Auwal	12	13	9
„ Duim	9	13	3
Jedanga	3	6	6
Alan	10	9	6
Dabi tut	19	10	6
Matal tut	13	9	9
Bastee	28	11	
Udbastee	9	8	

Garden and Tanks.—No special rates for these, mostly udbastee, do, duim, and jedanga. Vegetables not sold by weight, but an average weight assumed for the present calculation.

K.

Charitable Institution.

Charitable Institutions in the District of Beerbhoom.

Class and object of Institution	Number of Institutions.	Average number of persons daily aided	Number aided in year	Income				Number of Institutions which afford relief			In what shape relief is given
				Paid by Government	From Endowment		Subscriptions and donations.	In-door	Out-door	General	
					In land	In money					
Government Institutions											
Dispensaries	A	A									There are no charitable institutions in thana Burrwa as noted in the return, but an almshouse and a charitable dispensary have been established by one Kali Baboo, of Panchthopee, at his own house
Poor-houses—											
General											
For blind											
„ deaf											
„ lepers											
Supported by General Public											
For cure of sickness											There are no charitable institutions in thana Mouresher
To relieve paupers											
For blind											
„ Deaf											
Hindoo											
For cure of sickness											There are three fever dispensaries within thana Sacoolipore, to which the figures given in the return relate, there are no other charitable institutions
To relieve paupers											
„ lepers											

Part IV

STATISTICS OF INSTITUTIONS

A.

Ecclesiastical.

Return of Religious Institutions of various denominations in the District of Beerbhoom.

Explanatory remarks.—There are no institutions in thanas Burrwa, Mouresher, and Sacoolipore which impart instruction in religious doctrines.

G.

Manufacture.

	Class of Manufacture												Remarks.
	Silk	Cotton	Wool	Other fibrous	Paper	Wood	Iron	Brass and copper	Buildings	Oil machines	Earthenpot machinery	Thread machines	
Thana Burrwa													
Number of mills and large manufactories	2												
Private looms or small works	42	517	10			100	59			95	200	3 429	
Male	515												
Number of workmen in large works, female	109												
Number of workmen in small works or independent artisans	290	517	10			100	59			95	200	3,429	
Number of European superintendents in large works	1												
Value of plant in large works	128,000												
Estimated annual outturn of all works	5												
Thana Mouresher													
Number of mills and large manufactories	1												
Private looms or small works	183	591		8		190	93			693	151	6,594	
Male	128												
Number of workmen in large works, female	80												
Number of workmen in small works or independent artisans	1,847	591		8		190	93			693	151	6,594	

G.—(*Continued.*)

Manufacture.

	Class of Manufacture.												Remarks.
	Silk.	Cotton.	Wool.	Other fibres.	Paper.	Wood.	Iron.	Brass and copper.	Buildings.	Oil machines.	Earthenpot machines.	Thread machines.	
Number of European Superintendents in large works	1	.....	.....	.....	.....	.....	...	.....	.....	.....	.	...	
Value of plant in large works	40,000	.....	.....	.....	.....	.....	....	.....	.....	.....	. .	.	
Estimated annual outturn of all works ...	5	bunds	.....	.....	.....	.....	.....	.....	.....	.....	.....	.	
Thana Sacoolipore.													
Number of mills and large manufactories ...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	
Private looms or small works	24	494	8	.....	.....	110	74	32	....	297	152	4,661	
Male	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Number of workmen in large works, female	.....	.....	.....	.....	.....	.....	.....	.....	.....	..	.....	...	
Number of workmen in small works or independent artisans .. .	24	494	8	.....	.....	110	74	128	.....	297	152	4,661	
Number of European Superintendents in large works	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..	
Value of plant in large works	.....	...	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	
Estimated annual outturn of all works ...	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	

F.

Mines and Quarries.

WHERE SITUATED	Mineral produced	Number of mines	Annual produce	REMARKS
Thana Burrwa		Blank		No kunkur Here and there to the north-western side "ghuting" lime occurs
Thana Mourcshor		Blank		No mines and quarries
Thana Sacoolipore		Blank		Ditto ditto